Midwifery Practice in the Third Stage of Labour

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Appendix one

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Changing the focus for the third stage of labour

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ABSTRACT

This paper suggests that midwives re-evaluate management strategies for the third stage of labour and reflect upon the widely-held belief that intervention at this time is an improvement on the normal physiological processes and is without risk. Midwives are challenged to embrace a normal rather than a risk focus in light of support from WHO, who suggest 'definite conclusions about the value of active management of the third stage in healthy low-risk populations cannot yet be drawn' (WHO, 1999). If midwives are to face this challenge they need to be proactive in normalising the third stage, developing expertise in expectant management and revisiting skills in detecting those women deviating from normal in whom an active third stage may be appropriate.

For the majority of midwives the third stage of labour is regarded as a time of potential hazard when unexpected and life threatening events can occur (Sleep, 1993; Elbourne, 1996). This perspective is reinforced within the midwifery literature which focuses on the third stage as a period fraught with danger requiring skilled handling, e.g.

> *'For the mother, this (the third stage) has the potential to be the most dangerous stage of labour when the skill and expertise of the midwife will be crucial in facilitating a safe, healthy outcome' (McDonald, 1999).*

Similar statements, emphasizing the abnormal aspects of the third stage, appear in the majority of midwifery textbooks.

The focus on things likely to go wrong stems historically from the early half of the 20th century when postpartum haemorrhage (PPH) was a significant cause of maternal mortality and morbidity and when the medicalization of childbirth was seen as an attractive innovation without risk.

It was suggested that the most significant cause of PPH was the failure of the uterus to contract and control blood loss from the placental site of attachment (Akins, 1994). The fear of this happening has led to the routine use of uterotonic drugs and interventionist strategies which speed up the third stage of labour and purport to control bleeding.

While concern about excessive bleeding will continue to be legitimate for developing countries where PPH remains a significant cause of maternal mortality and morbidity, within the UK this is not the case. This raises the question of whether we need to re-evaluate the maintenance of the abnormal focus (Edwards, 1999). In addition we may also wish to reflect upon the perspective that intervention in the third stage of labour is an improvement on the normal physiological processes and is without risk.

History

Active management is a package of care for the third stage of labour which involves the giving of a uterotonic drug such as syntometrine or syntocinon, early clamping and cutting of the cord and the speedy delivery of the placenta usually by cord traction. The alternative package of care, often termed expectant (or physiological) management does not involve the giving of a uterotonic drug and is based upon a principle of 'watchful anticipation' or 'hands off'.

Active intervention in the third stage of labour is not new (*Table 1*). Aristotle referred to cord traction two thousand years ago and manipulation of the uterus to deliver a separated placenta (Crede's manoeuvre) was commonly taught at the beginning of the 20th century (Jellett, 1901). However, active management did not become popular until after the isolation of the active ingredients of ergot (ergometrine) in 1935 (Dudley and Moir) and pituitary extract (syntocinon) in 1954 (du Vigneaud and Tippett).

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Initially ergometrine was used as a treatment for PPH and then given following the third stage to prevent it. In the 1950s it became popular to give ergometrine at crowning of the baby's head and it was used alongside cord traction to deliver the placenta quickly to prevent bleeding (Moir, 1955).

The benefits of mixing syntocinon and ergometrine was suggested and marketed in the 1960s as syntometrine (Embrey et al, 1963). It was given with the birth of the baby's anterior shoulder and followed by cord traction under the influence of syntocinon and before the more sustained contraction triggered by ergometrine. This package of care became known as active management and its popularity quickly spread. It has been so successful that in the 21st century, the use of active management for all women has become the norm throughout the UK (Garcia and Garforth, 1989). This approach was introduced as a medical innovation and 'rolled out' to all women. As Moore highlights:

> *'As so often with developments in obstetrics all mothers come to be treated in the same manner irrespective of the degree of risk' (1977).*

Table 1. Milestones in active management of the third stage of labour

2000 years ago	Aristotle and cord traction
19th century	Crede manoeuvre
1935	Isolation of ergometrine
1950s	Ergometrine as prophylaxis given during the third stage
1960s	Syntometrine as prophylaxis with early cord clamping and cord traction
1990s	Active management 'routine practice'

Table 2. Criticisms of active management of the third stage of labour

Minimal advantage in relation to blood loss
Side effects including nausea, vomiting, headache, retained placenta, postpartum eclampsia, cardiac disorders
Lack of midwifery skill in expectant management – a flaw of research studies
Debate over what is excessive blood loss
Does active management delay or prevent bleeding?
Variation in practice
Impact of early cord clamping

Appropriate for all?

Over the last 20 years there has been a growing debate within midwifery over the management of the third stage of labour (Isherwood, 1989; Gyte, 1994) and more recently women themselves have been seeking a choice in the way their third stage is conducted. While the benefits of active management cannot be questioned for women at risk of PPH, its indiscriminate use for women at low risk experiencing normal birth has been challenged (Odent, 1998; WHO, 1999). There are a number of issues that need consideration (*Table 2*).

Active management criticised

Minimal advantage in relation to blood loss

A systematic review of four studies comparing active management with an expectant or physiological approach supports the prophylactic use of active management in a hospital birth situation (Prendiville et al, 2000). The implications for home birth are less clear. The review concluded that there was an overall reduction in maternal blood loss of less than 100 ml in women having an active third stage of labour over expectant management (weighted mean difference -79.33 ml, 95% confidence interval: -94.29 to -64.37).

Side effects of active management

The review also highlighted that certain uterotonic drugs have been associated with raised blood pressure, nausea, vomiting and headaches. Higher rates of retained placenta in active management have also been reported (Begley, 1990) along with more serious complications such as postpartum eclampsia and cardiac disorders (WHO, 1999).

It has been suggested that syntocinon should replace syntometrine as the drug of choice in active management as some of the complications above have been associated with the ergometrine component of syntometrine (McDonald et al, 1995; 2000; WHO, 2000).

Lack of midwifery skill in expectant management

Critics of studies comparing active and expectant management highlight a number

of factors which may have influenced the results, among them the lack of skill in expectant management among midwives involved in the research studies.

Three out of four studies were conducted in hospitals where active management was the norm (Gyte, 1994). While the latest study was conducted at Hinchingbrooke (Rogers et al, 1998) where expectant management was said to be more common, statistics are not available as to the rate of expectant management before the trial began. Milner (1989) suggests that this was 15–20% in the mid-1980s.

Debate over what is normal blood loss and problems in estimation

The issue of defining what constitutes excessive blood loss has been raised along with the difficulties of estimating amounts lost. It is well recognized that blood loss estimation is inaccurate with high loss often being underestimated (Brant, 1967; Razvi et al, 1996). In addition, as the reduced loss associated with active management has become the norm, midwives may interpret the slightly higher blood loss rates in expectant management as abnormal.

Currently a PPH is defined as a blood loss in excess of 500 ml. However, in some countries this is 1000 ml and Gyte (1992), a haematologist, suggests that healthy women appear to cope well with the loss of such amounts. If this more generous definition had been used in the Hinchingbrooke study, no statistically significant difference in PPH rates would have been found between expectant and active management approaches (Rogers et al, 1998).

In the Netherlands, only 10% of midwives routinely use oxytocic prophylaxis for the third stage (de Groot et al, 1996) and rates of home birth are much higher than in the UK. Results from the Lente study comparing active and expectant management of the third stage among Dutch midwives are eagerly awaited. Initial findings point to no difference in blood loss rates in excess of 1000 ml for active and expectant management arms of the trial (Herschderfer, 1999). This may add weight to the growing evidence that, for low-risk women, an expectant management approach may not significantly increase blood loss following birth.

Blood loss delayed in active management

More recently it has been suggested that while oxytocics may appear to reduce blood loss at delivery, when the action wears off on the postnatal ward, lochia loss is heavier (Wickham, 1999). Wickham shares her personal experience of observing and caring for postnatal women following both active and expectant management of the third stage. She observed that following active management women often experienced a heavy blood loss when going to the bathroom for the first time on the postnatal ward.

She suggests this heavy loss does not occur in women who have had expectant management. Is the use of uterotonics during the third stage merely delaying blood loss until a time when it is less likely to be noticed? Perhaps women are intended to lose blood at this time as they no longer require such a high circulating blood volume to supply the placental bed. In addition, the haemodilution of pregnancy may support a woman's physiological ability to cope with this.

Further studies are required to look at what constitutes normal blood loss following childbirth and the implications of actively reducing it.

Variation in practice

It is widely accepted in midwifery that there are two ways of managing the third stage of labour; actively or expectantly. Yet a universally acceptable definition of these terms is not available.

When comparing research protocols of published trials, no consensus can be reached on a definition of what constitutes active and expectant management which implies that there is variation in practice within each approach (Prendiville et al, 1988; Begley, 1990; Thilaganathan et al, 1995; Rogers et al, 1998). Gyte (1994) suggests that the use of a 'piecemeal' approach — a combination of active and expectant management techniques — was used by a significant number of midwives within the Bristol trial.

A study is currently underway exploring midwives' practice during the third stage of labour. Initial results support variation in practice in both active and expectant man-

> ***It is well recognized that blood loss estimation is inaccurate with high loss often being underestimated***

agement (Harris, 2000). This highlights the difficulty in evaluating the results of comparative studies where variation in practice could have occurred.

Logue (1990) compared PPH rates between doctors and midwives who attended births and found considerable variation, with some individuals having consistently much higher rates of PPH than others. Logue proposes that when managing the third stage:

> *'more conservative and patient operators show the lowest rates compared with the more impatient and heavy-handed who show the highest rates'.*

This implies that the action or inaction of midwives and doctors may have a direct impact on the outcome of the third stage and requires further exploration. Some of the literature refers to the potential dangers of fundal fiddling and inappropriate cord traction leading to uterine inversion (McDonald, 1999). It would be interesting to see an analysis of PPH rates for active and expectant management in individual midwives within the published trials.

Clamping and cutting the cord and the impact on the baby

Early clamping and cutting of the cord is a routine aspect of active management. There is growing evidence that timing of clamping of the cord may impact on the health and wellbeing of the infant. According to WHO (1999):

> *'Late clamping (or not clamping at all) is the physiological way of treating the cord, and early clamping is an intervention that needs justification.'*

Delayed cord clamping is associated with the infant receiving more blood back from the placenta (approximately 80 ml) (Yao and Lind, 1974; Dunn, 1985) and this has a positive effect on iron stores (Pisacane, 1996). However, if syntometrine is given there is a risk that excessive amounts of blood will be pushed into the baby with the potential for hypervolaemia, polycythaemia and hyperbilirubinaemia (Edwards, 1999).

The amount of blood transfused will also depend on the position of the baby following birth. Gravity may encourage the loss of blood and therefore a lower haematocrit. There may be beneficial effects of continued delivery of oxygenated blood to the infant via the cord following birth, particularly in those infants born prematurely or asphyxiated (Dunn, 1985). Early cord clamping has also been implicated in increasing the possibility of feto-maternal transfusion, of particular importance in women who are rhesus negative (Lapido, 1972).

Timing of clamping the cord may impact on the health and wellbeing of the baby.

Meeting the challenge

In a recent report from WHO (1999), it was suggested that:

> *'definite conclusions about the value of active management of the third stage in healthy low-risk populations cannot yet be drawn.'*

The report goes on to:

- Support the use of prophylactic oxytocin for women at risk of PPH or endangered by even a small amount of blood loss
- Support the elimination of the use of routine parenteral ergometrine
- Suggest that the use of routine oxytocin and/or controlled cord traction be used with caution until further research can be carried out as there is currently insufficient evidence to support a clear recommendation.

This appears to reflect a subtle change

in interpretation of current evidence with a discernible move away from the long-held belief that intervention in the third stage of labour is appropriate for all women towards a recognition that, while intervention may be appropriate for some, it may not be for all. Also, there is a growing awareness that active management is not without risk and should be used with caution as highlighted above.

Conclusions

It is possible to draw out three key challenges for practice from this review:

- How do we change the abnormal focus of the third stage of labour in practice?
- How do we develop expertise in detecting those women in whom active management of the third stage may be appropriate?
- How do we develop expertise in managing the third stage of labour expectantly without running the risk of applying active management principles to a 'hands off' approach?

The abnormal focus for the third stage of labour is entrenched in hospital and NHS practice. To change this requires midwives to reflect upon their own fundamental beliefs in relation to childbirth and to explore the available evidence which supports a more balanced view of third stage events and highlights the risks involved in interventionist strategies.

It has not been necessary to pay particular attention to women at specific risk of PPH within a hospital environment as active management has been routinely used and medical care is readily available. If expectant management is to be offered, the challenge is now to revisit those skills at detecting abnormality so that appropriate care can be given. While we lift up the banner 'birth is a normal process', it is imperative that we recognize women whose labour moves outside the normal parameters.

Many midwives lack confidence and skill in managing the third stage of labour expectantly (Featherstone, 1999). As we move cautiously toward considering that expectant management may be an appropriate choice for women experiencing normal birth, there is a need to identify how midwives will develop this expertise. This is particularly difficult in an environment in which active management is considered the norm and where the majority of midwives have embraced interventionist principles.

Expectant management is about 'watchful waiting' and a 'hands-off' approach. It is a particular challenge for midwives to relearn these skills in an environment that does not support their application and where the potential difficulties of mixing approaches have been highlighted (Gyte, 1994).

Midwife educators are challenged to refocus their teaching about the third stage of labour and to highlight to student midwives that this phase can be safely conducted physiologically. The real key to effective care is in managing the third stage according to the individual needs of women whether that be expectantly or actively.

Midwives are challenged to offer support to each other in developing new skills in an environment which focuses on the normality of childbirth without losing sight that potential deviations from the norm can occur. This may be achieved through the review of practice guidelines which focus not on potential hazards but on the normal birth experience.

Midwives are also challenged to acknowledge their own limitations in relation to the third stage of labour and actively seek help and support from supervisors and managers in developing expertise in expectant management techniques. As midwives develop these skills, they in turn can pass them on to others. BJM

> ***There is a growing awareness that active management is not without risk and should be used with caution***

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KEY POINTS

- A risk focus on the third stage of labour pervades both contemporary practice and education for practice.
- The assumption that active management is appropriate for all women and is without risk needs to be challenged.
- Definite conclusions about the value of active management of the third stage in healthy women cannot yet be made.
- The challenge for midwives is to change the focus to one of normality and to re-skill in both expectant management techniques and the ability to detect women deviating from the spectrum of normality and for whom active management is appropriate.

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Appendix two: Tabulated descriptions of third stage management in the literature by midwife activity level and oxytocic administrations

Appendix 1a: Published descriptions of third stage management in Group A: Limited active management: Oxytocic drug given with no midwifery activity

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Gyte 1994) England	Piecemeal	Yes but not type not identified	Not defined	None	Not defined	Not defined	Not defined	Not defined	Not defined	No cord traction	Not stated

Appendix 1b: Published descriptions of third stage management in Group B: Partial active management : Oxytocic drug given with midwife partially active

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Poeschmann Doesburg et al. 1991) Netherlands	Conservative management	5 IU Organon or 0.5mg Sulprostone or saline	After birth of baby	Cord clamped and cut within 1 minute	not defined	Wait signs of detachment or descent				Woman asked to push No cord traction or fundal pressure	8.1 - 11.7 minutes
(Mitchell and Elbourne 1993) "Salford trial" England	Active	Synto-metrine	Anterior shoulder	Early clamping and cutting of the cord	Not define	Signs of separation		Following 3rd stage		Midwife encourages delivery by maternal effort and gravity Midwife's hand of abdomen to give woman something to push against Membranes teases or roped for delivery	Not defined

Appendix 1c: Published descriptions of third stage management in Group C: Complete active management : Oxytocic drug given with midwife fully active

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Daley 1951) England	Experimental management	0.5mg Ergometrine IM	At crowning	Not defined	Mother in left lateral for delivery	Hands on uterus until separation apparent	Dorsal	Into kidney dish at vulva		Not defined	15.94 minutes
(Kimbell 1958) England	Modified Brandt Andrews	Ergometrine 0.5mg and Hyalase IM	At crowning	A pair of forceps placed on cord close to the vulva and divided	Not defined	Detect separation but method not described				Guarding with controlled cord traction	Not defined
(Stearn 1963) England	Brandt Andrews	Syntometrine IM	Crowning	Not defined	Not defined	Detect 1st contraction	Not defined	Not defined	Not defined	Guarding and cord traction (Brandt Andrews)	4.59 minutes
(Spencer 1962) England	Brandt Andrews	Ergometrine 0.5mg IV	Anterior shoulder	Clamped and cut immediately after delivery of infant	Not defined	Identify contraction prior to management	Not defined	Not defined	Not defined	Guarding with gentle then more sustained traction on cord	6.3 minutes
(Spencer 1962) England	Controlled cord traction	Ergometrine 0.5mg IV	Anterior shoulder	Cord clamped and cut	Not defined	Wait for contraction but not described how	Not defined	Not defined	Not defined	Guarding Traction on cord in a downward/ backwards direction (CCT)	
(Embrey, Barber et al. 1963) England	Active manage-ment	Syntometrine IM 1ml or Ergometrine 0.5mg IM	Anterior shoulder	Not defined	Not defined	Yes, but not defined how	Not defined	Dish at vulva		Placenta expressed by fundal pressure when uterus contracted	within 10 minutes
(Hibbard 1964)	Active management	Syntometrine 1ml IM	After delivery of infant's head	Cord cut and divided and then released to drain the blood from the cord.	Not defined	Not mentioned	Not defined	Receiver at vulva	Not defined	Empty bladder Wrap cord around hand Guarding of uterus Controlled cord traction	Within 15 minutes

Appendix 1c: Published descriptions of third stage management in Group C: Complete active management : Oxytocic drug given with midwife fully active continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Botha 1968) South Africa	Not named	Syntometrine	Anterior shoulder	Clamped and cut, then maternal end bled	Not defined	Wait for next contraction	Not defined	Not defined	Not defined	Guarding and cord traction or maternal effort	Not defined
(Rooney, Hughes et al. 1985) England	Active management	Syntometrine ?dose/route	Anterior shoulder	Not defined	Not defined	Not defined	Not defined	Not defined	Not defined	Not defined	Not defined
(Prendiville, Harding et al. 1988) England	Active management	Syntometrine 1ml IM or Synthetic oxytocin 10 units IM	Anterior shoulder	Cord clamped and cut within 30 seconds of delivery of infant	Not defined	Check uterus contracted	Give no advice regarding posture	Not defined		Guarding Cord traction	5 minutes
(Begley 1990) Ireland	Active management	IV Ergometrine 0.5mg	Immediately after delivery of infant	Cord clamped and cut within 30 seconds	Not defined	Yes but method of detection not defined	Lying (93%)	Sterile receiver at vulva	-	Controlled cord traction (detail not specified)	Mean 11.26 mins
(Bider, Ben-Rafael et al. 1992) Israel	Study group "By observ-ation"	1mg PGF2 Alpha in 20ml into cord	Within 15 seconds of delivery	Cord clamped immediately	Not defined	Signs of separation				Gentle traction on the cord	7.31 +/- 6.37 minutes
(Pierre, Mesnard et al. 1992) France	Active management	Oxytocin IV ? amount	Anterior shoulder	Cord clamped at 20 seconds	Not defined	Wait for signs of placental separation	Dorsal	-	No	Spontaneous expulsion by gentle fundal pressure and CCT No maternal effort	Less than 5 minutes
(Silverton 1993) England	Active	Syntometrine mostly, IM		Apply two clamps to cord and cut immediately after delivery.	Not defined	Yes but not defined				Guarding with cord traction	Within 7

Appendix 1c: Published descriptions of third stage management in Group C: Complete active management : Oxytocic drug given with midwife fully active continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3r stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Abdel-Aleem, Abol-Oyoun et al. 1993) Egypt	Active management	a)Carboprost trometamol 0.25mg IM or b) Methyl Ergometrine Maleate 0.2mg IV	Immediately after delivery of infant	Not defined	Not defined	Contraction identified at approx 1 minute Detection method not defined				Not defined	a) 2.3 +/- 0.8 minutes b) 3.4 +/- 1.2 minutes
(Thilaganathan, Cutner et al. 1993) England	Active management	Syntometrine 1 ml IM	As soon as possible following birth	Cord clamped and cut immediately	Not defined	Not defined	Not defined	Not defined	Not defined	Placenta delivered by CCT - not defined	6 minutes (range 5-10)
(Gyte 1994) England	Active management	Prophylactic oxytocics (various)	Not defined	Early clamping and division of the cord	Not defined	Not defined	Not defined	Not defined	Not defined	Controlled cord traction	Not defined
(Chua, Chew et al. 1995) Singapore	Active management	Syntometrine Or Prostaglandin 15-methyl F2 Alpha	Anterior shoulder for both groups	Not defined for both groups	Not define	Await signs of placental separation				CCT after signs of placental separation	Not defined
(Enkin, Keirse et al. 1995) England	Active management	various	Not defined	Early cord clamping and cutting	Not defined	Not defined Not defined	Not defined	Not defined	Not defined	Controlled cord traction	Not defined
(Edwards 1995) Britain	Active management	Syntometrine 1ml IM	Anterior shoulder	Cord clamped and cut immediately after baby's birth	Not defined	Midwife's hand on abdomen to await 1st contraction	Semi recumbent or lying down	Catch blood at vulva in kidney dish		May or may not await signs of placental separation CCT	Within 7 minutes
(Khan, John et al. 1995) United Arab Emirates	Active management	Syntometrine 1ml IM or Oxytocin 10 units IM	Anterior shoulder	Cord clamped and cut immediately	Not defined	Contraction detected but method not described				CCT	4 minutes

Appendix 1c: Published descriptions of third stage management in Group C: Complete active management : Oxytocic drug given with midwife fully active continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Lee 1995) England	Active management	Oxytocin or Ergometrine or both	Anterior shoulder	Cord clamped and cut soon after birth	Not defined	Wait till placenta separated - method not defined				CCT to deliver separated placenta	Not defined
(el-Refaey, P et al. 1996) England	Active management with Misoprostol	Misoprostol 0.6mg orally (3 tablets)	After delivery of baby	Not defined	Not defined	Not defined				Actively according to hospital policy (not defined)	5 minutes
(Prendiville, Elbourne et al. 1996) England	Active management	Ergot alkaloids or Oxytocin or Prostaglandins or syntometrine IM/IV/orally	After delivery of baby	Early clamping and cutting of the cord	Not defined	Not defined				Guarding CCT to deliver the placenta	Not defined
(Rogers, Wood et al. 1998) (Rogers, Wood et al. 1998) England	Active management aided by gravity	Syntometrine 1ml IM or Syntocinon 10IU IM	As soon as possible after delivery of the anterior shoulder	Clamp and cut the cord as soon as possible after delivery of the baby	Not defined	Observe for signs of separation (cord stopped pulsating)	Upright. If placenta not delivered in ten minutes, position changed to semi recumbent		Encouraged if placenta not delivered within ten mins	By maternal effort. If not delivered within ten minutes then controlled cord traction	8 (5.3 – 11) mins
(Rogers, Wood et al. 1998) England	Active management in supine or semi recumbent position	Syntometrine 1ml IM or Syntocinon 10IU IM	As soon as possible after delivery of the anterior shoulder	Clamp and cut the cord as soon as possible after delivery of the baby	Not defined	Observe for signs of separation (cord stopped pulsating)	Supine or semi recumbent. If placenta not delivered within ten minutes upright posture		Encouraged if placenta not delivered within ten mins	By maternal effort. If not delivered within ten minutes then controlled cord traction	8 (5.3 – 11) mins

Appendix 1d: Published descriptions of third stage management in Group D: Complete physiological management: No oxytocic drug given with no midwife activity

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Daley 1951) England	Control management	None	-	Not defined	Not defined	Hands on uterus until separation apparent		Into kidney dish at vulva		Maternal effort	19.82 minutes
(Botha 1968) South Africa	Physiological cord not clamped	None	-	None till placenta delivered	Between mother's legs on bed	No handling of uterus	Kneeling	Not defined	Not defined	Placenta received when outside vagina	3.5 +/- 2.0 minutes
(Rooney, Hughes et al. 1985) England	Non active management	None	-	Not defined		Not defined				Not defined	Not defined
(Prendiville, Harding et al. 1988) England	Physiological management	Try not to give an oxytocic	-	Try to leave the cord intact till placenta is delivered		By mother Midwife notes signs of placental separation	Upright		Yes	Try not to use CCT or any manual interference during 3rd stage of labour Maternal effort to deliver the placenta	15 minutes
(Gyte 1994) England	Physiological / physiological/ conservative	None	-	No cord clamping till after the placenta delivered	Not defined	Not defined	Upright	Not defined	Not defined	No cord traction or fundal pressure Maternal effort aided by gravity	Not defined
(Edwards 1995) Britain	Physiological management	None	-	Not defined	In mother's arms	Recognise signs of separation	Upright wherever possible			Importance of warmth and comfort Woman lets the placenta go	Not defined
(Lee 1995) England	Physiological management	None	-	Cord left intact until placenta delivered	Not defined	Not defined	Upright			Spontaneous delivery by uterine contraction helped by maternal effort and gravity	Not defined

Appendix 1d: Published descriptions of third stage management in Group D: Complete physiological management: No oxytocic drug given with no midwife activity continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Prendiville, Elbourne et al. 1996) England	Physiological "Hands off"	None	-	Not defined	Not defined						
(Rogers, Wood et al. 1998) England	Physiological aided by gravity	None	-	No clamping and cutting of the cord if possible. If clamped, release clamped end of cord and leave unclamped	Not defined	Instruct mother to feel for next contraction or an urge to push or signs of separation (cord no longer pulsating)	Upright		Encouraged	Expulsion by maternal effort. Once placenta in vagina cord may be used to guide placenta out gently.	15 (10-25) mins
(Rogers, Wood et al. 1998) England	Physiological in supine or a semi recumbent position	None	-	No clamping and cutting of the cord if possible. If clamped, release clamped end of cord and leave unclamped	Not defined	Instruct mother to feel for next contraction or an urge to push or signs of separation (cord no longer pulsating)	Supine or semi recum-bent. However if placenta not delivered within 20 minutes change to upright posture		Encouraged	Expulsion by maternal effort. Once placenta in vagina cord may be used to guide placenta out gently	15 (10-25) mins
(Harvie 1767) England	Harvie's fundal pressure	None	-	No	Not defined	Note signs of separation by examination of abdomen - uterus smaller, more mobile and rises up in abdomen				Uterus pressed down facilitating expulsion of placenta Controlled cord traction (CCT) only if placenta retained	Not defined

Appendix 1d: Published descriptions of third stage management in Group D: Complete physiological management: No oxytocic drug given with no midwife activity continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Brandt 1933) USA	Brandt management	-	-	Artery clamp placed on cord close vulva for delivery of placenta. ? whether cut	Not defined	No touching of abdomen for 5-10 minutes (awaiting separation)				Guarding Cord held taught, but traction avoided Delivery of placenta by downward pressure above symphysis pubis	8 minutes
(Stearn 1963) England	Traditional method	None	-	No handling of the cord	Not defined	Await signs of placental separation				Expulsion by fundal pressure or maternal effort	Not defined
(Botha 1968) South Africa	Physiological/ cord clamped	None	-	Clamped and cut and then clamp released to allow cord to bleed	Not defined	No handling of uterus				Placenta received when outside vagina	10.5 +/- 4.0 minutes
(Bullough, Msuku et al. 1989) Malawi	Management with early suckling	None	-	Cord tied and divided after 3 minutes	Between mother's legs	No touching of abdomen	Sitting up	None	After 3 minutes (once cord tied)	Signs of separation Delivery of placenta by maternal effort	Not defined

Appendix 1e: Published descriptions of third stage management in Group E: Partial physiological management : No oxytocic drug with partial activity by midwife

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Bullough, Msuku et al. 1989) Malawi	Management without early suckling	None	-	Cord divided and tied after 3 minutes	Between mother's legs	No touching of abdomen	Sitting up	None	No	Signs of separation Delivery of placenta by maternal effort	Not defined
(Combs and Laros 1991) USA	Non invasive management	None	-	Not defined	Not defined	Not defined				Non invasive manoeuvres: Cord traction/ Credé Manoeuvre/ Brandt Andrews manoeuvre/ Fundal pressure/ spontaneous	6 minutes
(Silverton 1993) England	Physiological	None	-	Cut cord when pulsation stopped, then unclamp and drain maternal end	On bed or in mothers arms	Wait for uterus to contract	Not defined	Following 3rd stage	Not defined	Maternal effort assisted by midwife placing hand on lower abdomen and lifting out placenta by cord once in the vagina	2-3 minutes
(Thilaganathan, Cutner et al. 1993) England	Physiological management	None	-	Cord not clamped and cut until pulsation stopped. If clamped , the clamp is removed and cord bled.	Not defined	Wait signs of separation	Erect	Not defined	Not defined	Maternal bearing down Midwife assists if placenta felt in vagina	13 minutes (range 9-23)
(Irons, Sriskandabalan et al. 1994) Scotland	Nipple stimulation	None	None	Not defined	Not defined	Observe signs of separation such as cord lengthening			Bilateral nipple stimulation following delivery for 15 minutes by woman	Controlled cord traction	12.3 minutes

Appendix 1e: Published descriptions of third stage management in Group E: Partial physiological management : No oxytocic drug with partial activity by midwife continued…

Author	(1) Manage-ment type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Irons, Sriskandabalan et al. 1994) Scotland	Nipple stimulation	None	-	Not defined	Not defined	Observe signs of separation such as cord lengthening			None	Controlled cord traction	12.3 minutes
(Enkin, Keirse et al. 1995) England	Physiological or '"Watchful waiting"	None	-	None Cord clamped and cut when placenta delivered	Not defined	Not defined	Upright	Not defined	Not defined	No fundal pressure Maternal effort aided by gravity	Not stated
(Begley 1990) Ireland	Physiological management	None	-	Cord cut after pulsation ceased. When cut cord milked of blood	Not defined	Identified by woman	Lying (89%)	Sterile receiver at vulva	Encourage breast feeding	Watch for signs of placental separation Alter position to upright Encourage woman to push	Mean 11.59 mins
(Stroud and Cochrane 1990) England	Physiological	None	-	Cord not clamped until pulsation ceased (up to 30 minutes	Not defined	Await signs of separation Avoid stimulating uterus	Upright	-	Yes	Pass urine Falls out by gravity Midwife helps deliver membranes by roping them Avoid CCT	Not defined

Appendix 1f: Published descriptions of third stage management in Group F: Limited physiological management: No oxytocic drug given with midwife fully active

Author	(1) Management type	(2) Oxytocic drug	(3) When given	(4) Handling of cord	(5) Position of baby	(6) Detection of contraction	(7) Position of woman during 3rd stage	(8) Collection of blood during 3rd stage	(9) Breast feeding during 3rd stage	(10) Delivery of placenta	(11) Duration of 3rd stage
(Bider, Ben-Rafael et al. 1992) Israel	Control group Traditional method "By observation"	20ml Normal saline in to cord	Within 15 seconds of delivery	Cord clamped immediately	Not defined	Signs of separation				Gentle traction on the cord	8.94 +/- 7.10 minutes
(Gyte 1994) England	Piecemeal	None	-	Early clamping/ cutting of the cord	Not defined	Not defined	Not defined	Not defined	Not defined	Cord traction	Not stated

Appendix three: Basic beliefs of inquiry paradigms (adapted from Lincoln and Guba 2000)

Issue	Positivism	Postpositivism	Critical theory et al	Constructivism	Participatory
Ontology	Naive realism – reality apprehendable	Critical realism – reality only imperfectly apprehendable	Historical realism – virtual reality shaped by socio political, cultural values	Relativism – local and specific constructed realities	Participative reality – subjective-objective reality, co-created by mind and given cosmos
Epistemology	Dualist/objectivist Findings true	Modified dualist/objectivist findings probably true	Transactional/ subjectivist; value mediated findings	Transactional/ Subjectivist; created findings	Critical subjectivity. Experiential, propositional and practical knowing; co-created findings
Methodology	Experimental/ Manipulative. Theory verification. Chiefly quantitative.	Modified experimental/ Manipulative. May include qualitative	Dialogic/dialectic	Hermeneutic/dialectic	Political participation in collaborative action inquiry; primacy of the practical,

Appendix four: Grounded theory mapped against differing inquiry paradigms

Issue	Positivism	Post positivism	Critical theory et al	Constructivism	Participatory
Ontology	Naive realism – reality apprehendable Creation of generalised theory which explains behaviour	Critical realism – Creation of theory which is best fit for events, but can be developed/modified	Creation of theory influenced by socio-political issues, reality shaped by this.	Creation of theory relative to context in which investigating – locally constructed reality. Not necessarily generalisable	Creation of practically based theory co-created by participants with context of research. Not necessarily generalisable
Epistemology	Objectivist stance in research process. Findings true	Strive towards objectivism while accepting bias possible Findings probably true, but can be amended	Socio political values guiding research process towards emancipation /development of participants. (subjective stance)	Researcher/participant focus on shared meaning. Consensus on relative truth	Co-created findings, using a practical subjective stance.
Methodology	Both theory generation with theory verification combined. Quantitative or qualitative data.	Theory generation with theory verification from within data. Quantitative or qualitative data	Qualitative data, Theory generation and theory verification involving participants	Theory generation using qualitative methodology. Stressing the Hermeneutic/dialectic	Political participation in collaborative action inquiry; primacy of the practical.

Appendix five: An example of a grounded theory

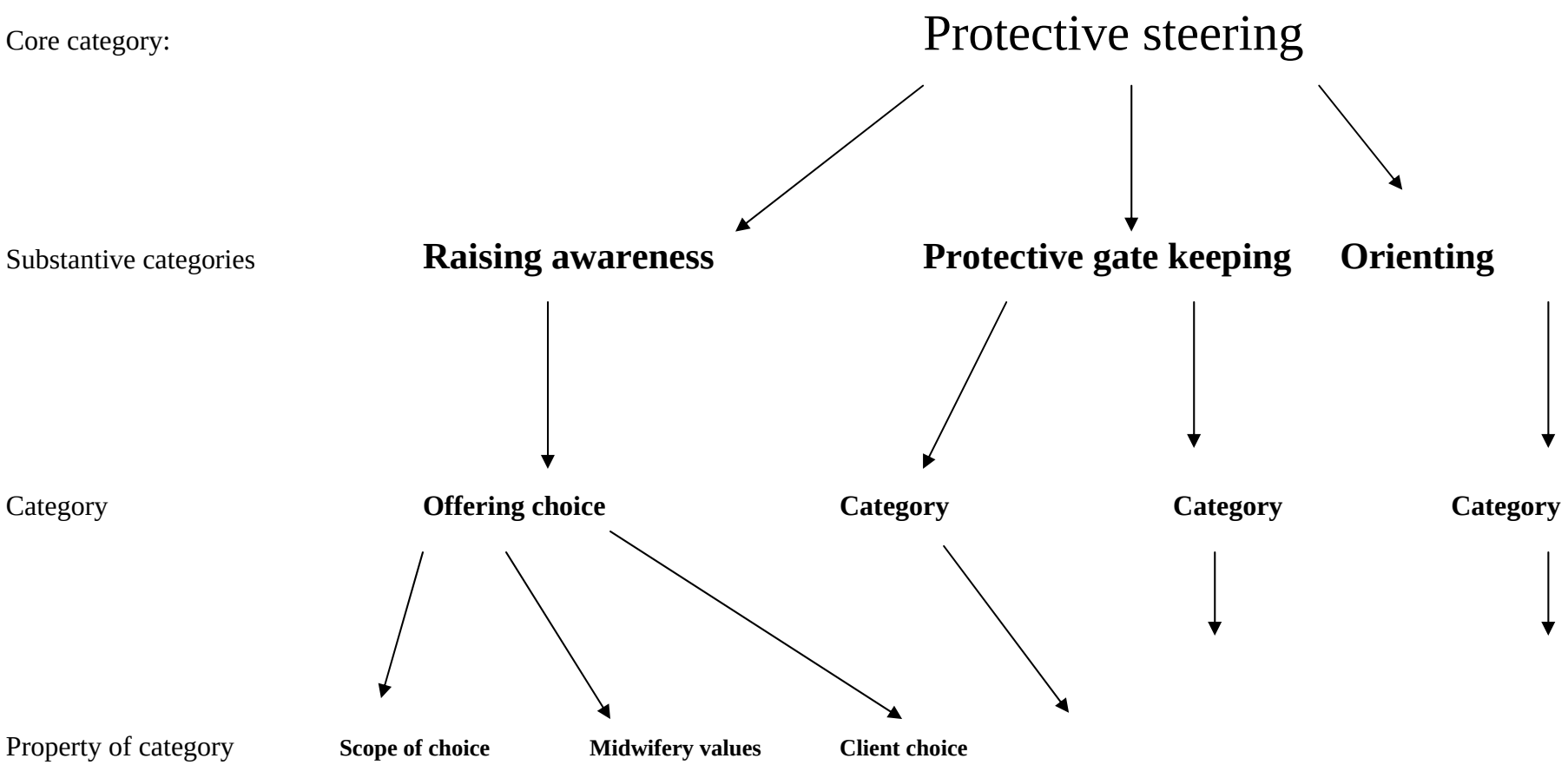
A ‘category’ is a conceptual element of theory. For example in Levy’s grounded theory study of the processes by which midwives facilitated informed choice during pregnancy (Levy 1999), the core conceptual category which emerged from the data was ‘protective steering’ with substantive categories being ‘orienting’, ‘protective gate keeping’ and ‘raising awareness’. The substantive category ‘raising awareness’ was further categorised into ‘setting agenda’, ‘elucidating’ and ‘offering choice’. According to Morse (Morse 2001) the use of a core category in a grounded theory narrows its scope, keeping it manageable. However this may restrict or simplify reality by omitting significant processes and whilst keeping the theory neat, confines it to the lower mid range of abstraction (Morse 2001).

A ‘property’ is a conceptual aspect or element of a category. The properties of a category describe its meaning and variation. Again using Levy’s work as an example, the category ‘offering choice’, was described in terms of the degree to which women were free or restricted in their choices, the degree to which women wished to make their own choices and the value midwives themselves placed on offering choice. Conceptual categories and properties have a life apart from the evidence that gives rise to them. They are created by the researcher during comparison of the data, and are the building blocks of theory generation moving from the specific description of data to its abstract conceptualisation.

Hypotheses form the relationships between categories. In grounded theory research they quickly emerge, often while collecting data. One such hypothesis in Levy’s work was

> *“the greater the perceived ability of the woman to assimilate information, the further into detail and hypothetical realms the midwife would be prepared to go”*
> *Levy 1999:110*

This hypothesis linked categories ‘protecting women’ with ‘elucidating’. These interrelationships between categories and hypotheses emerge to form an integrated central theoretical framework - the core of the emerging theory. This occurs quite rapidly, through emergence of perspectives and can go on till the end of the study and beyond.



Appendix five: A model of a grounded theory from the work of Levy on midwives and informed choice (Levy 1999)

Appendix six: Protocols for a) unsafe or inappropriate practice in a midwife being observed or interviewed and b) when a midwife got into difficulty during a birth being observed.

This protocol outlines the process I would follow if, while observing or interviewing a midwife, I became aware of unsafe or inappropriate practice.

Action to be taken when faced with unsafe or inappropriate practice in a midwife

- Stop collecting data for research purposes.
- Ensure the safety of the woman being cared for by intervening if necessary.
- Highlight my concerns to the midwife and inform her of my professional responsibility to report the situation.
- Inform the midwife's line manager and supervisor of midwives.
- Seek advice and support from my supervisor of midwives
- Complete an NHS Trust incident report

Action to be taken if a midwife got into difficulty during a birth I was observing and required additional support?

- Make midwife aware before commencing observation that in situations of difficulty, as a midwife I could be called upon for support if needed.
- If situation arose in which a midwife required assistance, stop observation
- If asked to do so, support midwife, assisting in the delivery of care, as appropriate
- Offer support even if midwife did not ask for it
- Record in client's medical records any involvement in care

Appendix seven: Approval letters from NHS trusts (anonymised)

OBSTETRICS AND
GYNAECOLOGY
DIRECTORATE

Our Ref MAS/clb,

17th December 1996,

Tina Harris,
Midwife Teacher,
School of Midwifery,
Knighton Street,
Leicester Royal Infirmary.

Dear Tina,

I am happy to support your request to undertake some research into the management of the 3rd stage of labour at N.H.S. Trust.

I will be very interested to hear of the results in due course.

Senior Nurse/Midwife,
Obstetrics & Gynaecology Directorate.

Ref: LJW/AGM

Please Ask For:

18 October 1996

Mrs T Harris,
Senior Lecturer in Midwifery,
De Montfort University,
Scraptoft Campus,
Scraptoft,
Leicester.
LE7 9SU.

Dear Mrs Harris,

RESEARCH ON MIDWIFERY MANAGEMENT OF THIRD STAGE OF LABOUR

Thank you for your letter regarding the above for which I note you are currently seeking ethical approval.

I would be very happy to support you with your research project once you have received ethical approval and would be very keen to hear of progress during your research.

Head of Womens Services,
Obstetrics & Gynaecology.

HARRISRE/LJW/AGM/18.10.96

Appendix eight: Letter of introduction

To: Women booked under the care of the following consultant obstetricians

Please may I introduce you to Tina Harris who is a midwife and senior lecturer in midwifery at De Montfort University. She is conducting a research project on how midwives practice in the third stage of labour (during delivery of the afterbirth).

She would like to ask you to participate in this study.

I am aware of the project and have given my consent for her to approach women booked under my care.

Please feel free to ask her any questions about the project.

Consultant signature Consultant signature Consultant signature

Consultant signature Consultant signature Consultant signature

Appendix nine: Research ethics committee approval letter (anonymised)

19 February 1997
Ms T Harris
Senior Lecturer in Midwifery
De Montfort University
Scraptoft Campus, Scraptoft
Leicester LE7 9SU

Dear Ms Harris

Midwifery Practice in the third stage of labour - our ref. no. 4516
Further to your application dated 19 December, 1996, you will be pleased to know that the Ethics Committee at its meeting held on the 10 January, 1997 approved your request to undertake the above-mentioned research conditional upon the information to patients being provided in the form of a request for them to take part before consent is obtained.

I would remind you, however, that your research project has been given approval only in relation to its acceptability from an ethical point of view. If, subsequently, departure from the methodology outlined in your protocol is contemplated, the Ethics Committee must be advised in order that the proposed changes may be approved. Also a report should be made to the Ethics Committee if any significant adverse reactions are noted during the course of the study. In addition, any NHS resource implications of your project must be discussed with the appropriate Trust Chief Executive. Similarly, it may be that the research project has implications for other disciplines and, if so, you are advised to discuss them with the appropriate departmental manager. Researchers should also be able to assure the Ethics Committee that satisfactory arrangements have been made for the labelling, safe storage and dispensation of drugs and pharmaceutical staff are always willing to provide advice on this.

Researchers' attention is also drawn to correspondence from the Regional Director of Public Health dated 28 January, 1991 relating to Clinical Trials which sets out revision of the procedures to be followed, and the Clinical Trials Indemnity Letter and Deed of Guarantee. Researchers should ensure that these indemnity arrangements have been complied with.

Researchers intending to study selective groups of patients in the community are reminded that their first approach should be to the individual patient's general practitioner to ascertain whether the particular patient was suitable for inclusion in the study. Equally, when the researcher contacts the patient it should be emphasised that the approach is made with the knowledge of the General Practitioner, with whom the patient may discuss this research, if the patient so wished.

Yours sincerely

Appendix ten

Published article on process of approval

Gaining approval for clinical research in third stage management

By

Tina Harris

Published in 1998 by the British Journal of Midwifery

Volume 6, issue 8, pages 532-534

Gaining approval for clinical research in third stage management

By Tina Harris

Abstract

Gaining approval for clinical research can be a long and drawn out process. For midwives considering clinical research the process of gaining access and approval needs to be explored well in advance. This article outlines the process of gaining approval and access based upon the author's experiences in a study currently being conducted on midwifery practice in the third stage of labour. This particular project involved approval from several institutions and individuals. Approval was required from the university where students who may be observed were studying, approval for the researcher to be released to conduct the research and approval from the NHS Trusts and Ethics Committee where observation of clients and interviews with midwives was to be conducted. The important issue of indemnity will also be explored

Gaining approval for clinical research can be a frustrating and time consuming exercise. Approval is likely to be needed from the directorates within the trusts involved, from the research or quality department of the trusts involved, from the appropriate ethical committee and also from lead professionals responsible for the women whom you intend to approach. In addition, if the researcher is a university employee, the issue of indemnity needs to be addressed.

This paper discusses a project currently being conducted which investigates midwifery practice in the third stage of labour. An outline of the research proposal will be included and discussion of the clinical area access/approval process explored. Key areas in the approval process will be highlighted.

MIDWIFERY PRACTICE IN THE THIRD STAGE OF LABOUR

The events immediately following the birth of a baby can lead to unexpected and life threatening situations (Elbourne, 1996). During this period the midwife is required to provide expert care to ensure complete delivery of the placenta and membranes with control of bleeding. In recent years the use of oxytocics and controlled cord traction (active management) has become [illegible] is suggested that blood loss is reduced and thus safety is enhanced by this method. Allowing events to occur physiologically (passive management) also occurs, but less frequently. There is an ongoing debate about which method of third stage management is most appropriate (Elbourne, 1996). Comparative studies in the 1980s have been criticised for not allowing sufficient time to educate midwives in the use of physiological management, with the suggestion that findings may be misleading (Gyte, 1989). Research carried out in Bristol acknowledged that blood loss following delivery from physiological management of the third stage reduced as midwives became more experienced in the management method (Prendiville et al, 1988). In addition, results from two major studies appear to differ in retention of placenta rates in active management of the third stage of labour (Chalmers et al, 1989). It could be suggested that this may reflect the differing practices of the midwives in each study area.

Observational studies of midwifery practice during the third stage of labour are not available. Such research may identify the variety of ways this part of the labour process is managed by the midwife. In addition, asking midwives how they practice and why they practise in this way may help to address educational needs prior to further comparative research. The intention of this research is to explore current midwifery management in the third stage of labour. The study aims are to identify and explain the variety of ways midwives manage the third stage of labour and to identify the characteristics associated with different third stage management practises.

The study design includes:

- Observation of midwifery practise by the midwife researcher, with informal interviews being conducted with midwives following delivery (n=60).This may include the observation of students in training.
- Tape recorded semi-structured interviews with midwives lasting approximately on [illegible]

Tina Harris is Senior Lecturer in Midwifery at De Montfort University.

This article was accepted for publication on 8 April 1997

GAINING APPROVAL FOR CLINICAL RESEARCH

This particular research project requires approval from several institutions and individuals including approval from the university where students are studying, approval for the researcher to be released to conduct the research and approval from the NHS trusts where observation of clients and interviews with midwives will be conducted.

University approval

To utilize university students in this way requires approval (usually written) from the head of department at the university where the students are being taught. This may be relatively easy if the researcher (as in this case) is a member of staff. However, gaining access may be more problematic for clinicians. It is recommended that midwife researchers in practice may like to approach the approved midwife teacher or discuss the project with the department head where midwifery students are being taught.

Approval for research activities

The researcher also needs to seek approval for research activities. This involves approval to do the research, support with the research itself and negotiating release from other duties and finance to cover costs.

In the first instance approval is needed from the department or directorate in which the researcher is employed prior to seeking funding. The process of bidding for research money is a waste of time if the management are unwilling or unable to support the project. In addition, research themes may be emphasised in university departments and within directorates. Therefore, proposals reflecting these themes may be more likely to be supported.

Once approval for research activity is given, the issue of support needs to be explored. Many midwives are now considering registration for higher research degrees and therefore can gain the necessary support from their supervisory team. It is suggested that the team should include experts in research methodology as well as those who have an understanding of midwifery issues.

If not registering for a higher degree, support can be gained from experienced researchers from within midwifery, who may be within university departments or within clinical practice. Support may also be gained from other allied health professionals.

Negotiating release from other duties may be achieved by the use of scholarly activity time which is often part of university academic contracts. However, clinicians cannot do this and not all academics have such a contract. Release from duties has a cost implication therefore external funding may be essential.

Financial support can be gained from a variety of sources. For example, research offices within trusts, voluntary agencies, NHS executive research and development departments and business sponsorship. In this case a substantial training grant was given by the NH Executive Trent, for salary costs, MPhil/PhD registration and incidental expenses.

Approval from the NHS trusts

Any research involving clients or patients requires ethical approval. In addition, the use of staff employed within a trust for research purposes also requires approval.

Seeking the cooperation of a trust for clinical research can be a lengthy process. Trusts are all too aware of their responsibility to protect their clients privacy and confidentiality. Several key issues have been raised in this research project.

Approval needs to be given for the researcher to approach staff and clients and to be present within the trust premises. Written consent from collaborating institutions is often required for MPhil/PhD application purposes. This involves approaching the senior midwife and/or clinical director for the directorate involved with a copy of the completed research protocol. This is a good starting point in the approval process as directorate management are usually aware of the process for seeking trust approval. In addition, improvements in the research protocol may be achieved through its critical appraisal at this time, prior to ethical approval being sought. With this project the clinical director provided invaluable help in asking key questions, which led to amendments to the protocol.

AWARENESS OF THE RESEARCH PROJECT

Individuals being approached during a research project need to be made aware that the researcher is legitimate.

‘Any research involving clients or patients requires ethical approval. In addition, the use of staff employed within a trust for research purposes also requires approval.’

KEY POINTS

- Gaining approval for clinical research can be a frustrating and time consuming exercise.
- Adequate time for the approval process is needed, along with access to a key individual who is aware of the mechanisms.
- Approval needs to be gained from a variety of sources, i.e. from a university, from employers, from the NHS trusts involved and from an ethical committee.
- An important principle is to ensure everyone is aware of the research project and consent is given.
- Consideration of researcher indemnity may need to be explored.

Researchers may be asked to seek a letter of introduction from each lead professional of women they wish to approach. This may involve writing to the senior midwives of the trusts, clinical directors and all consultant obstetricians. Some trusts now require that a letter of introduction is shown to all women being approached by the researcher, which has been signed by their lead professional. In addition, many ethics committees now require researchers to gain written consent from women involved in their project. Devising a consent form may be part of the application for approval process.

Staff also need to be made aware of the research project. Involving midwives in research by observation of their practice, may engender distrust and suspicion. The researcher may be seen as a spy or critic. Therefore the process of seeking approval from individual practitioners is essential and requires the development of honesty and openness between midwife and researcher.

APPROACHING THE TRUST RESEARCH COMMITTEE

Once access to the trust for research purposes is supported by the directorate, approaching the research department within the trust is required. This may involve the completion of specific trust forms. Many trusts like these forms to be approved by a clinical director or head of department from within the trust.

If you are a university employee you may want to seek two signatures for your forms; one from your department head, the other from a clinician. Supporting material such as consent forms, user friendly patient information leaflets and any questionnaires to be used are usually required at this time.

The research department may be responsible for passing your completed ethical approval forms to the ethics committee in your area. These forms are often available on computer disc which helps in professional presentation of your proposal. When completing these forms, it is recommended that you provide as much detail as possible. Again, approval signatures from a clinician may be required along with the head of your department. If you are conducting research in more than one trust, this process has to be repeated in each institution.

INDEMNITY

As a trust employee you may already be covered by trust indemnity and have personal indemnity through a professional organization. However, if you are coming from outside the trust, for example from a university, this issue must be considered. Even though in this case no actual care will be changed and the midwife researcher will not be involved in care, indemnity must still be provided to cover emergency situations that may arise.

As a member of a university involved in teaching and clinical updating within trust premises, honourary contracts may be issued resolving this problem. If this is not the case, exploring this issue with the directorate management is recommended, and should be resolved prior to commencing research activities.

CONCLUSION

Approval for research can be lengthy. Seeking out a key individual to support this activity is recommended, as many trusts have their own procedures. Consideration needs to be given to seeking access to the institution and gaining approval from staff, clients, trust managers, trust research departments and ethical committees. When planning research, sufficient time needs to be allowed for this important process.

The process of approval will raise awareness of the research and may facilitate the development of effective cooperation between researcher, staff and clients. Cutting corners at this stage may lead to litigation, disciplinary procedures and abandonment of research activities. It may also lead to loss of client choice and have a detrimental effect on care. Future research activities in clinical practice may also be affected. BJM

Chalmers I, Enkin M, Kierse M (1989) *Effective care in pregnancy and childbirth*. Oxford University Press, Oxford

Elbourne D (1996) Care in the third stage of labour. In Robinson S, Thomson A eds *Midwives research and childbirth Vol 4* Chapman and Hall, London

Gyte G (1989) Comments on Bristol third stage trial *New Generation* 8(3): 19–20

Prendiville W, Harding J, Elbourne D, and Stirratt G (1988) The Bristol third stage trial: active versus physiological management of the third stage of labour. *Br Med J* 297: 1295–1300

Appendix eleven: Confirmation of indemnity (anonymised)

RESEARCH AND DEVELOPMENT

Ms T Harris
Senior Lecturer in Midwifc
De Montfort University
Scraptoft campus, Scraptoft.
Leicester
LE7 9SU.

Project Ref: RFD 805
Please use this reference in all correspondence with the research office, regarding this project.

Re: "Midwifery Practise in the third stage of labour".

Dear Ms Harris,

We have been notified by the ethics committee that the above titled project has been given approval. Your research notification form has been approved and your project is indemnified by the Trust; on condition that an midwife makes the introductions between patient and researcher/observer **and** that you comply with the Ethics Committee's requirement that

"...the information to patients being provided in the form of a request for them to take part before consent is obtained".

Could you please notify this department if there are any changes to the commencement or end dates for the project.

Director of Research & Development

Appendix twelve: Midwife information leaflet

MIDWIFERY PRACTICE IN THE THIRD STAGE OF LABOUR

midwife

A project being conducted by
Tina Harris

An invitation to participate

DE MONTFORT
UNIVERSITY
LEICESTER

My name is Tina Harris and I am a midwife who lectures at De Montfort University. I am conducting a research project looking at how midwives care for women during the third stage of labour. The aim of the study is:

> *to identify and explain the variety of ways the third stage of labour is managed by the midwife.*

The project involves a variety of data collection tools including

- observation of midwifery practice in the third stage of labour both in community and hospital settings.
- semi structured interviews with midwives
- collection of information from medical records

For the success of the project *I need your help*

I would like to invite you to participate in the study. There are two ways in which you can be involved in this project:

1. *Consent to being interviewed*

   I need midwives to talk to me about how they manage the third stage of labour. If you would like to talk to me, please ring me on 0116 257 7804

2. *Consent to my presence in the delivery room during the second and third stages of labour.*

   At times when I am available to observe I may ask you to participate in the study. If you consent the following will happen:

- I will ask you to approach clients who have been diagnosed 'in labour' on my behalf.
- I will ask you to give them an invitation to participate in the study.
- If the client agrees, I will ask you to introduce me to her, when I will answer any further questions and obtain written consent.
- I will then ask you to call me into the delivery room at the onset of the second stage of labour. Though I am only interested in third stage of labour events, I feel that entering the room at this time may be less intrusive than at the end of the second stage.
- During the third stage of labour I will observe events and make notes.
- I will not participate in care.
- Care should continue unchanged.
- Following delivery I may ask you a few questions about your impression of the third stage of labour events.
- I will also obtain some information from the client's medical records.

Thank you for reading this leaflet. If you have any questions/comments please do not hesitate to contact me on 257 7804

May I take this opportunity to thank you for your participation. Without your contribution, this project could not be conducted.

Tina Harris

Appendix thirteen: Semi structured interview guide

1. **Midwives training before qualifying as a midwife**
    a. How participant became a midwife
    b. Where studied.
    c. Type of course.
    d. Length of time since qualifying.
    e. Education during training on the third stage of labour
2. **Current employment**
    a. Resume of career as a midwife
    b. Current position
    c. What environments women deliver in
    d. Those present in the room during the birth
3. **Management of the third stage of labour**
    a. Feelings about the third stage of labour
    b. Management of the third stage in women experiencing normal childbirth

    Definition of normal childbirth

    "Uneventful pregnancy in a woman who is not anaemic (anaemia being a haemoglobin estimation of less that 10g/dl), spontaneous labour at term with a singleton fetus, cephalic presentation with spontaneous vaginal delivery of a healthy infant"

        i. Oxytocic use
        ii. Timing of oxytocic
        iii. Instructions/consent for oxytocic administration
        iv. Time of cord clamping
        v. Time of cord cutting
        vi. Position of woman during delivery of infant
        vii. Position of baby when cord cut
        viii. Position of woman during delivery of placenta and membranes
        ix. Checking uterine contraction
        x. Guarding the uterus

xi. Handling cord during placental delivery
xii. Delivery of placenta
xiii. Delivery of membranes
xiv. Length of third stage

c. Why third stage managed in this way?
d. Other ways third stage managed?
e. How do you decide how to manage the third stage
f. Complications in third stage management

4. Development of expertise in third stage management

a. Support and supervision since qualify
b. How support and supervision influenced third stage practice if at all
c. Developing third stage practice expertise
d. Formal training about the third stage since qualifying
e. Key incidents which have influenced third stage management

5. Story telling about the third stage

6. Trust policy on third stage management

a. Is there a policy
b. What does it say?

7. Personal values about childbirth and the third stage of labour

a. Philosophy of care for women during labour
b. Role women play in decision making about 3rd stage in your practice
c. Information given on third stage
d. Feelings about oxytocic drugs to manage third stage
e. Feelings about not giving oxytocic drugs to manage third stage

8. Personal attributes

a. Age
b. Gender
c. Ethnicity
d. Marital status
e. Children
f. Team
g. Current post

Appendix fourteen: Midwife checklist for suitable clients for observation

Midwifery Practice in the third stage of labour: Midwife checklist for suitable clients for observation (Tina Harris 2577804)

Your help and support in finding suitable women to participate in the midwifery practice in the third stage of labour project is greatly appreciated. This is a guidance sheet to help you to identify those women who are suitable to be included and what further action to take.

- The first thing to do is to check whether I am going to be on duty today by looking in the green folder (where there will be a list). The midwife in charge will also know whether I am due to come in and how to contact me. If I am already on duty come and have a chat and I will talk you through the process.
- The second thing to do is to identify a suitable client whom you are caring for. Suitable clients are those women admitted to delivery suite who you are expecting to deliver vaginally.
- Only approach those women whom you feel can make an informed choice about their inclusion in the study.
- Please give the women a client information sheet (coloured yellow at the general and green at the infirmary) and ask if I could come and talk to them about the project.
- I will then provide both yourself and the client with any additional information.
- If the client verbally consents, I will ask her to sign a consent form.
- If you are familiar with the project and are happy to do so, you may wish to provide additional information about the project and obtain written consent from women in my absence. This form should then be attached to the partogram and a red sticker attached to the outside of medical records.
- If I have not already met the client (i.e. you have given the information sheet and obtained written consent), at a convenient moment I will introduce myself to her and answer any further questions about the research.
- I will then place a red dot on the front of the notes and attach the consent form to the partogram if this has not already been done.
- As soon as the onset of the second stage of labour has been confirmed, please can I ask you to call me into the birthing room. I will then remain in the room at a discrete distance until the third stage of labour is complete. I will not participate in care except in an emergency, and will be taking notes during this time.
- Once the birth is complete, if you are happy for me to do so, I will ask you a few questions about the third stage of labour and your perception of events.
- I will also take some notes from the client's medical records

Thank you so much for helping with this project. Without the women and your help this project would not have been possible.

Appendix fifteen: Client information leaflet

MIDWIFERY PRACTICE IN THE THIRD STAGE OF LABOUR

client

A project being conducted by
Tina Harris

An invitation to participate

DE MONTFORT
UNIVERSITY
LEICESTER

My name is Tina Harris and I am a midwife who lectures at De Montfort University. I am conducting a project looking at how midwives care for women during the third stage of labour (during delivery of the placenta or afterbirth). I am looking at what happens during delivery of the placenta and what the midwife does during this time. This may help to improve the care midwives offer in the future.

I would like to invite you to take part in this project.

This will involve the following:

- I will be introduced to you by your midwife and answer any questions you may have about the project. I will ask you to sign a consent form.
- I will be present during the birth of your baby and during the delivery of the placenta as an observer. I will be taking notes during this time and will not participate in your care.
- The care you receive will not be changed in any way.
- Following delivery I will take some information from your medical records. This information is confidential and your anonymity will be guaranteed at all times.
- If at any time you wish to withdraw from this project, you can tell your midwife and I will leave the room immediately. This will in no way affect the subsequent care you receive.

Thank you for reading this information. If you have any questions about the project, please do not hesitate to ask myself or the midwife caring for you.

If you **do not wish** to participate in the project, please hand this letter back to your midwife who will let me know your decision.

If you **would like** to participate in this project, please keep this information and tell your midwife. I will then come and see you personally.

May I take this opportunity to thank you for your participation. Without your contribution, this project could not be conducted.

Tina Harris
Contact number: 0116 257 7804

Appendix sixteen: Consent form

DE MONTFORT
UNIVERSITY
LEICESTER

School of Health and
Community Studies
Department of Nursing and Midwifery

Mel Chevannes
PhD BA(Hons) MA RGN RM RHV Teacher's Cert RHVT
Head of Department

Midwifery practice in the third stage of labour

CONSENT FORM

I _____consent to participate in the midwifery practice in the third stage of labour project being conducted by Tina Harris. I consent to the following:

- The presence of Tina Harris as an observer during the birth of my baby/babies and during the delivery of the placenta and membranes
- The taking of notes by Tina Harris on events occurring during the delivery of the placenta and membranes
- The taking of information from my medical records

I have had the project fully explained to me and understand that at any time if I wish to withdraw from the study I may do so. This will not affect in any way the subsequent care I will receive.

_____Signature of client

_____Date of signing

I have explained to_____about the midwifery practice in the third stage of labour project. She has received an information sheet and I have witnessed her signature on this consent form.

_____Signature of witness

_____Date of signing

Scraptoft Campus Scraptoft Leicester LE7 9SU Telephone (0116) 255 1551 Direct Line (0116) 257 7769
Fax (0116) 257 7708 Email vhspokes@dmu.ac.uk Internet http://www.dmu.ac.uk
De Montfort University has centres at Leicester, Milton Keynes, Bedford and Lincoln

Appendix seventeen: Examples of observation schedules

Observation schedule

Medical records number: _____

1. Individuals present at delivery	
2. Date and time of delivery	
3. Comments on woman's position during the second stage of labour	

4. Comments on handling of baby at delivery including position of baby during third stage of labour	
5. Comments regarding discussion between midwife and woman about management of the third stage of labour	
6. Comments regarding instructions/explanations given to woman prior to delivery of the placenta	
7. Comments regarding drug administration during third stage including when given and issue of consent.	

8. Comments regarding clamping and cutting of the cord including taking of cord blood.	
9. Comments regarding preparation by midwife to deliver placenta (i.e. gloves, drapes, receiver)	
10. Comments regarding midwife's handling of the woman's abdomen including detection of uterine contractions.	
11. Comments on woman's position during third stage including instructions given by midwife	

12. Comments regarding signs of separation	
13. Comments regarding vaginal examination during the third stage of labour	
14. Comments regarding midwife's management during the third stage of labour including 'guarding', aiding placental delivery and handling of the cord	

15. Comments on presentation of placenta at vulva	
16. Comments on midwife’s verbal and body language during delivery	
17. Comments on delivery of membranes	
18. Time of delivery of placenta	
19. Time of delivery of membranes	

20. Comments on verbal and non verbal communication between midwife and woman during the third stage of labour	
21. Comments about collection and measurement of blood loss	
22. Comments on the midwife's management of bleeding during and following the third stage of labour	
23. Comments on any unusual events that occurred during the third stage of labour	

24. Any further general comments about the period of observation	

Age: _____

Marital status: _____

Ethnic origin: _____

Parity: _____

Antenatal care: _____

Rhesus status: _____

Last Hb: _____

Employment: _____

Diagram of room contents and the position of individuals present during the third stage of labour

Observation schedule

Date..... Client unit number.....

Midwife.....Student.....

---

1. Individuals present at delivery

Delivery midwife	☐
Student midwife (observing)	☐
Student midwife (delivering)	☐
Other midwife/ midwives	☐
Partner	☐
Other family/friend	☐
Obstetrician	☐
Paediatrician	☐
Other	☐
Total present	☐

---

2. Time of delivery.....

---

3. Position of woman at delivery

.....

.....

_____

4. Position of baby at delivery.....

5. Resuscitation of baby: No ☐ Yes ☐
Comments:.....

.....

_____

6. Position of baby during 3rd stage.....

.....

_____

7. Discussion with woman about management of 3rd stage:

No ☐ Yes ☐
Comments:.....

.....

_____

8. Instructions/explanations given to women during 3rd stage.....

.....

.....

.....

.....

_____

9. Oxytocic drug include amt.....Route.....

10. When drug given: Anterior shoulder ☐

Immediately following delivery ☐

Delayed > 2 minutes ☐

None given ☐

Comments.....

.....

11. Time of cord clamping.....

12. Waiting for cord to stop pulsating Yes ☐

No ☐

Unclear ☐

Comments:.....

.....

13. Blood drained from cord while in situ: Yes ☐

No ☐

Comments.....

.....

14. Time of collection of cord blood.....

15. Place of cord blood collection.....

16. Drapes on abdomen: Applied ☐
Not applied ☐

17. Changing of midwife's gloves: Not changed ☐
Time changed ☐

18. Positioning of receiver for placenta delivery.....
.....

19. Touching of the abdomen: Number of times ☐
Intermittent ☐
Continuous ☐
Comments.....

.....

_____

20. Position of woman during the third stage of labour.....

.....

21. Instructions given regarding position for placental delivery.....

.....

.....

_____

22. Awaiting signs of separation: Yes ☐

No ☐

Unclear ☐

Comments.....

.....

_____

23. Signs of separation observed: Trickle of PV blood ☐

Cord lengthening ☐

Abdominal changed noted by midwife ☐

Comments.....

.....

.....

_____

24. Detection of uterine contraction following delivery:

Midwife by observation of woman ☐

Midwife by hand on abdomen ☐

Woman ☐

Other ☐

Comments:.....

25. Vaginal examination during 3rd stage No ☐

Yes ☐

Comments:.....

.....

---

26. Guarding of the uterus Yes ☐

No ☐

Description.....

.....

---

27. Aiding placental delivery Maternal effort ☐

Midwife ☐

Other ☐

Comments.....

.....

---

28. Handling of cord during placenta delivery

- Not handled ☐
- Clamp ☐
- Around fingers ☐
- Repositioned clamp ☐

Comments:.....

29. Traction on cord

- None ☐
- Continuous ☐
- Intermittent ☐
- Firm ☐
- Gentle ☐
- Down into bed ☐
- Curve of Cares ☐
- Other ☐

Comments.....

.....

---

30. Presentation of placenta at vulva

- Duncan ☐
- Schultze ☐
- Other ☐

Comments:.....

.....

31. Delivery of placenta

- Into receiver ☐
- Midwife's hands ☐
- Other ☐

Comments:.....

.....

32. Delivery of membranes

- Spontaneous ☐
- Placenta twisted ☐
- Up/down movement ☐
- Application of clamp ☐
- Other ☐

Comments.....

.....

---

33. Ease of delivery of membranes

- Immediate ☐
- Delayed ☐
- Easy ☐
- Difficult ☐

Comments:.....

.....

34. Time of delivery of placenta.....

35. Time of delivery of membranes.....

36. Comments made to woman during the third stage of labour or immediately afterwards:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

37. Blood loss collected Yes ☐

No ☐

Comments.....

.....

---

38. Blood loss measured

No ☐

Yes ☐

Sluice ☐

Delivery room ☐

Other ☐

Comments:.....

39. How midwife determined control of bleeding following third stage of labour:

.....

.....

.....

.....

.....

40. Description of checking of the placenta.....

.....

.....

.....

Appendix eighteen: Textual analysis of multiple editions of two midwifery textbooks published during the 20th century.

Author	Jellett 1897	Jellett 1897	Jellett 1901	Jellett 1905
Name of management	Waiting for placental separation then Credé expression	Natural method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method
Woman's position during 2nd stage	Suggests not on back	Suggests not on back	Suggests not on back	Suggests not on back, but pictures have been turned 90 degrees to show women lying down rather than standing.
Drug type	Ergot orally or by injection. Given as prophylaxis or treatment for bleeding.		Squibbs liquid extract of ergot 1-3 drachms orally	Squibbs extract of ergot 1-2 drachms orally
Timing of drug administration	After third stage.		After third stage	Only permissible for nurse to give after third stage.
Consent at time of administration	No mentioned	Not mentioned	Not mentioned	Not mentioned
Baby's position	Not defined.	Not defined	Not defined	Not defined
Cutting cord	After cord pulsation stopped	After cord pulsation stopped	After pulsation stopped	After pulsation stopped
Breastfeeding	-	-	-	-
General baby care	Baby removed from bed after cord cut	Baby removed from bed after cord cut	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.
General care	-	-	Woman's bladder emptied if full – how not described. To reduce pain	Woman's bladder emptied if full – how not described. To reduce pain.
Woman's position during 3rd stage	Turned on to her back during the third stage of labour	Turned on to her back during the third stage of labour	Turned on to her back during the third stage	Turned on to back for third stage
Bleeding	Uterus held throughout the third stage with one hand at the fundus to prevent it from filling with blood.	Uterus held throughout the third stage with one hand at the fundus to prevent it from filling with blood.	Uterus held throughout the third stage with one hand at the fundus to prevent it from filling. To control the uterus.	Uterus still held throughout third stage but focus on this being 'gentle' with no need for fundal pressure or friction if third stage proceeding normally.
Waiting	Waiting for placenta to separate and descend.	Waiting for placenta to separate and descend.	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus
Maternal signs of separation	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'
Signs of separation	Cord lengthening noted as distance between cord ligature and vulva increased. In addition noted fundus rising in abdomen, and abdominal wall bulging at pubes from descended placenta.	Cord lengthening noted as distance between cord ligature and vulva increased. In addition noted fundus rising in abdomen, and abdominal wall bulging at pubes from descended placenta.	Cord lengthens 4-6". Fundus rises to umbilicus. Abdominal wall bulges forward above pubes; looks like a full bladder.	Cord lengthens 4-6". Fundus rises to umbilicus. Abdominal wall bulges forward above pubes; looks like a full bladder.
Checking uterus	Uterus checked by hand abdominally, looking for increased uterine mobility as a result of rising above the pelvis.	-	Mobile fundus on abdominal palpation.	Mobile fundus on abdominal palpation, easily moved from side to side.
Guarding	-	-	-	-
Handling cord	-		-	.
Placental delivery	Fundus grasped with one or both hands and pressed down and back, to drive the placenta out of the vagina. Placenta received into the hands.	Placenta gradually works its way downwards over 2-3 hours.	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands
Membranes	Placenta twisted round in the hands to detach membranes	-	Placenta seized in hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Favoured placenta being seized in hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion. Roping membranes also mentioned.
Rationale	Shortens third stage	Takes too long	Shortens third stage	Shortens third stage

Author	Jellett 1908	Jellett 1914	Jellett 1918	Jellett 1922
Name of management	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method
Woman's position during 2nd stage	Suggests not on back.	Suggests not on back	Suggests not on back	Suggests not on back
Drug type	Squibbs extract of ergot 1-2 drachms orally	Ergot preparation 1-2 drachms orally	Ergot preparation 1-2 drachms orally	Ergot preparation 1-2 drachms orally
Timing of drug administration	Only permissible for nurse to give after third stage.	Only permissible for nurse to give after third stage.	Only permissible for nurse to give after third stage.	Only permissible for nurse to give after third stage.
Consent at time of administration	Not mentioned	Not mentioned	Not mentioned	Not mentioned
Baby's position	Not defined	Not defined	Not defined	Not defined
Cutting cord	After pulsation stopped	After pulsation stopped	After pulsation stopped	After pulsation stopped
Breastfeeding	-	-	-	-
General baby care	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.
General care	Woman's bladder emptied if full – how not described.	Woman's bladder emptied if full – how not described. To reduce pain	Woman's bladder emptied if full – how not described. To reduce pain	Woman's bladder emptied if full – how not described. To reduce pain
Woman's position during 3rd stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage
Bleeding	Uterus still held throughout third stage. While focus on this being 'gentle' with no need for fundal pressure or friction if third stage proceeding normally, there was also mention that firm pressure may need to be applied. 'Control' mentioned	'Controlling' the uterus abandoned. See checking uterus.	'Controlling' the uterus abandoned. See checking uterus.	'Controlling' the uterus abandoned. See checking uterus.
Waiting	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus
Maternal signs of separation	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'
Signs of separation	Cord lengthens 4-6". Fundus rises to umbilicus. Abdominal wall bulges forward above pubes; looks like a full bladder.	Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.
Checking uterus	Mobile fundus on abdominal palpation, easily moved from side to side.	Fundal palpation used to observe effective contractions with focus on avoiding pressure which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts	Fundal palpation used to observe effective contractions with focus on avoiding pressure which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts	Fundal palpation used to observe effective contractions with focus on avoiding pressure which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts
Guarding	-	-	-	-
Handling cord	-	-	-	-
Placental delivery	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands.	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands
Membranes	Favoured placenta being seized in hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion. Roping membranes also mentioned.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.
Rationale	Shortens third stage	Shortens third stage	Shortens third stage	Shortens third stage

Author	Jellett 1926	Jellett 1929	Jellett 1933	Jellett 1937
Name of management	1st period: Natural method. 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method
Woman's position during 2nd stage	Suggests not on back	Suggests not on back	Suggests not on back	Suggests not on back
Drug type	Ergot preparation 1-2 drachms orally or pituitrin ½ -1 cubic cm hypodermically	Ergot preparation 1-2 drachms or pituitrin ¼ of 1 c.c. of a 10% solution given hypodermically.	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.
Timing of drug administration	Only permissible for nurse to give after third stage. Pituitrin could be given during second stage under medical supervision.	Only permissible for nurse to give after third stage. Pituitrin could be given during second stage under medical supervision.	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.
Consent at time of admin	Not mentioned	Not mentioned	Not mentioned	Not mentioned
Baby's position	Not defined	Not defined	Not defined	Not defined
Cutting cord	After pulsation stopped	After pulsation stopped	After pulsation stopped	After pulsation stopped
Breastfeeding	-	-	-	-
General baby care	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.
General care	Woman's bladder emptied if full – how not described. To reduce pain.	Woman's bladder emptied if full – how not described. To reduce pain	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH
Woman's position during 3rd stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage
Bleeding	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.
Waiting	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus
Maternal signs of separation	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'
Signs of separation	Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.
Checking uterus	Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts	Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.
Guarding	-	-	-	-
Handling cord	-	-	Traction on cord never permissible.	Traction on cord never permissible.
Placental delivery	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands
Membranes	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.
Rationale	Shortens third stage	Shortens third stage	Shortens third stage	Shortens third stage

Author	Jellett 1940	Jellett 1942	Jellett 1945	Jellett and Dawson 1948
Name of management	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method	1st period: Natural method 2nd period: Dublin method
Woman's position during 2nd stage	Suggests not on back	Suggests not on back	Suggests not on back	Suggests not on back
Drug type	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.	Ergot preparation 1-2 drachms or solution of ergometrine given intramuscularly or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. All drugs not to be given to hypertensive women.
Timing of drug administration	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.
Consent at time of administration	Not mentioned	Not mentioned	Not mentioned	Not mentioned
Baby's position	Not defined	Not defined	Not defined	Not defined
Cutting cord	After pulsation stopped	After pulsation stopped	After pulsation stopped	After pulsation stopped
Breastfeeding	-	-	-	-
General baby care	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.	Baby removed from bed after cord cut.
General care	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH
Woman's position during 3rd stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage	Turned on to back for third stage
Bleeding	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.
Waiting	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus	1st period: Waiting for placenta to separate and be expelled from uterus
Maternal signs of separation	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'	Woman experiences a 'pain'
Signs of separation	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.
Checking uterus	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.
Guarding	-	-	-	-

Handling cord	Traction on cord never permissible.	Traction on cord never permissible.	Traction on cord never permissible.	Traction on cord never permissible.
Placental delivery	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands
Membranes	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.
Rationale	Shortens third stage	Shortens third stage	Shortens third stage	Shortens third stage

Author	**Dawson 1952**
Name of management	1st period: Natural method 2nd period: Credé method
Woman's position during 2nd stage	Suggests not on back
Drug type	Ergot preparation 1-2 drachms or pituitary extract ¼ of 1 c.c. of a 10% solution given hypodermically. Both drugs not to be given to hypertensive women.
Timing of drug administration	Only permissible for nurse to give after third stage. Forbidden for Pituitary extract to be given before delivery except under medical supervision.
Consent at time of administration	Not mentioned
Baby's position	Not defined
Cutting cord	After pulsation stopped
Breastfeeding	-
General baby care	Baby removed from bed after cord cut.
General care	Woman's bladder emptied if full – how not described. Reason given to reduce pain and to prevent PPH
Woman's position during 3rd stage	Turned on to back for third stage
Bleeding	Abdominal assessment to detect blood in uterine cavity rather than preventing its occurrence.
Waiting	1st period: Waiting for placenta to separate and be expelled from uterus
Maternal signs of separation	Woman experiences a 'pain'
Signs of separation	Focus on placenta leaving contractile part of uterus rather than leaving uterus completely. Cord lengthens 4-6". Fundus rises to umbilicus. Mobile fundus on abdominal palpation, easily moved from side to side. Checking separation achieved by drawing the uterus up gently by a hand on the lower abdomen. If placenta separated, cord is not drawn back up the vagina.
Checking uterus	Acknowledged debate over whether 'manual watching' necessary, but author adamant that it prevents PPH from going undetected. Hand placed at fundus, used to observe effective contractions. Focus on avoiding pressure, which prevents the uterus from rising and stops retro placental clot formation, which interferes with normal mechanisms of detachments and expulsion. Focus on 1st period always left to natural efforts.
Guarding	-
Handling cord	Traction on cord never permissible.
Placental delivery	Second period: Placenta expressed by grasping the fundus with one or both hands and pushing down and back to drive the placenta out of the vagina. Placenta supported in hands
Membranes	Placenta received into hands and drawn downwards to strip membranes from uterine wall and to aid complete expulsion.
Rationale	Shortens third stage

Author	Myles 1953	Myles 1953	Myles 1953
Name of management	Nature's management	Fundus as a piston	Cord traction
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.
Timing of drug administration	After third stage of labour complete.	After third stage of labour complete.	After third stage of labour complete.
Consent at time of admin	No mentioned	No mentioned	No mentioned
Baby's position	Baby on bed.	Baby on bed	Baby on bed.
Cutting cord	Cut immediately recommended by author to reduce chilling and jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Cut immediately recommended by author to reduce chilling and jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord	Cut immediately recommended by author to reduce chilling and jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in flannelette blanket.	Clear airway and wrap baby in flannelette blanket.	Clear airway and wrap baby in flannelette blanket.
General care	Observe general condition, keep warm	Observe general condition, keep warm. Ensure bladder empty	Observe general condition, keep warm. Ensure bladder empty
Woman's position during 3rd stage	Left lateral or dorsal (but dorsal seen as unnatural)	Left lateral or dorsal	Left lateral or dorsal
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .
Waiting	Vigilant observation and masterly inactivity. No meddling – mismanagement most common cause of bleeding	Wait for placenta to separate and descend.	Wait for placenta to separate and descend.
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.
Checking uterus	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	-	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery).	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Danger of cord traction in inexperienced hands highlighted, therefore not routine practice. Applied only after separation and descent of the placenta and only if experienced in its use as can be highly dangerous and cause bleeding.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps applied and use to lever membranes out. If none of these work, clamp left on membranes to aid delivery over next couple of hours.
Rationale			

Author	Myles 1956	Myles 1956	Myles 1956
Name of management	Nature's management	Fundus as a piston	Cord traction
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.	Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding
Timing of drug administration	After third stage of labour complete.	After third stage of labour complete.	After third stage of labour complete.
Consent at time of administration	No mentioned	No mentioned	No mentioned
Baby's position	Baby on bed	Baby on bed	Baby on bed.
Cutting cord	Value of waiting on cord clamping to premature infant identified. Cut immediately recommended by author to reduce physiological jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Value of waiting on cord clamping to premature infant identified. Cut immediately recommended by author to reduce physiological jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord	Value of waiting on cord clamping to premature infant identified. Cut immediately recommended by author to reduce physiological jaundice. Tied with ligatures or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in flannelette blanket.	Clear airway and wrap baby in flannelette blanket.	Clear airway and wrap baby in flannelette blanket.
General care	Observe general condition, keep warm	Observe general condition, keep warm. Ensure bladder empty	Observe general condition, keep warm. Ensure bladder empty
Woman's position during 3rd stage	Left lateral or dorsal (but dorsal seen as unnatural)	Left lateral or dorsal	Left lateral or dorsal
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .
Waiting	Vigilant observation and masterly inactivity. No meddling – mismanagement most common cause of bleeding	Wait for placenta to separate and descend.	Wait for placenta to separate and descend.
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Occur within 5-10 mins. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.
Checking uterus	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	-	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery).	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Danger of cord traction in inexperienced hands highlighted, therefore not routine practice. Applied only after separation and descent of the placenta and only if experienced in its use as can be highly dangerous and cause bleeding.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1958	Myles 1958	Myles 1958
Name of management	Nature's management	Fundus as a piston	Cord traction
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase IM for the first time. Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only (treatment).	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase IM for the first time. Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only (treatment).	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase IM for the first time. Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only (treatment).
Timing of drug administration	Prophylaxis: At crowning/birth of baby's head Treatment: After third stage	Prophylaxis: At crowning/birth of baby's head Treatment: After third	Prophylaxis: At crowning/birth of baby's head. Treatment: After third stage
Consent at time of administration	No mentioned	No mentioned	No mentioned
Baby's position	Baby on bed	Baby on bed.	Baby on bed. Wrap baby in cellular cotton blanket
Cutting cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in cellular cotton blanket.	Clear airway and wrap baby in cellular cotton blanket.	Clear airway and wrap baby in cellular cotton blanket.
General care	Observe general condition, keep warm	Observe general condition, keep warm. Ensure bladder empty	Observe general condition, keep warm. Ensure bladder empty
Woman's position during 3rd stage	Left lateral or dorsal (dorsal seen as unnatural)	Left lateral or dorsal	Left lateral or dorsal
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .
Waiting	Vigilant observation and masterly inactivity. No meddling – mismanagement most common cause of bleeding	Wait for placenta to separate and descend.	Wait for placenta to separate and descend.
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.
Checking uterus	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	-	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery).	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Danger of cord traction in inexperienced hands highlighted, therefore not routine practice. Applied only after separation and descent of the placenta and only if experienced in its use as can be highly dangerous and cause bleeding.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1961	Myles 1961	Myles 1961
Name of management	Nature's management	Fundus as a piston	Cord traction
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase 1000units IM. Ergometrine 0.5mg IM, or Ergotrate 0.2mg given with uterine massage for control of excessive bleeding only (treatment).	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase 1000units IM. Ergometrine 0.5mg IM, or Ergotrate 0.2mg given with uterine massage for control of excessive bleeding only (treatment).	Mentioned Prophylactic ergometrine 0.5mch + hyaluronidase IM for the first time. Ergometrine 0.5mcg IM, or Erblin 0.4mcg or Ergotrate 0.2mcg given with uterine massage for control of bleeding only.
Timing of drug administration	Prophylaxis: At crowning/birth of baby's head Treatment: After third stage of labour	Prophylaxis: At crowning/birth of baby's head. Treatment: After third stage of labour.	Prophylaxis: At crowning/birth of baby's head. Treatment: After third stage of labour
Consent at time of administration	No mentioned	No mentioned	No mentioned
Baby's position	Baby on bed.	Baby on bed.	Baby on bed.
Cutting cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in cellular cotton blanket.	Clear airway and wrap baby in cellular cotton blanket.	Clear airway and wrap baby in cellular cotton blanket.
General care	Observe general condition, keep warm	Observe general condition, keep warm. Ensure bladder empty	Observe general condition, keep warm. Ensure bladder empty
Woman's position during 3rd stage	Left lateral or dorsal (but dorsal seen as unnatural)	Left lateral or dorsal	Left lateral or dorsal
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 120-240ml (4-8oz). Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 120-240ml (4-8oz). Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .
Waiting	Vigilant observation and masterly inactivity. No meddling – mismanagement most common cause of bleeding	Wait for placenta to separate and descend.	Wait for placenta to separate and descend.
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Retro placental clot formation aids separation. Occur within 5-10 minss. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur. Mention of Brandt-Andrews technique	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur. Mention of Brandt Andrews technique	Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz). Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.
Checking uterus	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	-	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If fails, assistance must be given.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Danger of cord traction in inexperienced hands highlighted, therefore not routine practice. Applied only after separation and descent of the placenta and only if experienced in its use as can be highly dangerous and cause bleeding.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1964	Myles 1964	Myles 1964
Name of management	Nature's management	Fundus as a piston	Brandt Andrews cord traction
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml or Ergometrine 0.5mg + Hyaluronidase 1000 units or Ergo Rondase IM	Mentioned Prophylactic Syntometrine 1ml or Ergometrine 0.5mg + Hyaluronidase 1000 units or Ergo Rondase IM	Mentioned Prophylactic Syntometrine 1ml or Ergometrine 0.5mg + Hyaluronidase 1000 units or Ergo Rondase IM
Timing of drug administration	Prophylaxis: At crowning/birth of baby's head or after third stage complete.	Prophylaxis: At crowning/birth of baby's head or after third stage complete.	Prophylaxis: At crowning/birth of baby's head. Treatment: After third stage of labour.
Consent at time of administration	Not mentioned	Not mentioned	No mentioned
Baby's position	Baby on bed.	Baby on bed.	Baby on bed. Wrap baby in cellular cotton blanket
Cutting cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord	Cut immediately recommended by author to reduce physiological jaundice. Tied with twisted linen thread, nylon tape or metal clamps. However debate highlighted. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in cotton blanket.	Clear airway. Wrap baby in cotton blanket.	Clear airway. Wrap baby in cotton blanket.
General care	Observe general condition, keep warm	Observe general condition, keep warm. Ensure bladder empty	Observe general condition, keep warm. Ensure bladder empty
Woman's position during 3rd stage	Left lateral or dorsal (but dorsal seen as unnatural)	Left lateral or dorsal	Left lateral or dorsal
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 120-240ml (4-8oz). Measure all blood loss and estimate spillage . Emphasised.	Observe amount of vaginal blood loss. Normal amount expected 120-240ml (4-8oz). Measure all blood loss and estimate spillage . Emphasised.	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .
Waiting	Vigilant observation and masterly inactivity highlighted. No meddling – mismanagement most common cause of bleeding	Wait for placenta to separate and descend.	Wait for placenta to separate and descend.
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Retro placental clot formation aids separation. Occur within 5-10 mins. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.	Retro placental clot formation aids separation. Occurs within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz). Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.	Importance of signs of placenta in lower uterine segment highlighted. Occur within 5-10 minutes. Cord lengthens 3-4".Gush of blood (2oz). Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 mins to occur.
Checking uterus	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this but recommended by author. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	-	-	Left hand placed on lower abdomen pushing up and back during cord traction and called 'bracing the uterus' not guarding
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply artery forceps on cord near vulva.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If woman fails to expel the placenta by pushing, assistance must be given.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Empty bladder. Steady not too strong traction on cord (strong pull might break it). Danger of cord traction highlighted. Safety lies on ensuring placenta in lower uterine segment and bracing back of the uterus while traction made to prevent uterine inversion.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1967	Myles 1971	Myles 1971
Name of management	Controlled cord traction	Controlled cord traction	Modified Brandt Andrews
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml or Ergometrine 0.5mg + Hyaluronidase or Ergo Rondase IM	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women
Timing of drug administration	Prophylaxis: At crowning/birth of baby's head or with anterior shoulder or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.
Consent at time of administration	No mentioned	No mentioned	No mentioned
Baby's position	Baby on bed. Wrap baby in cellular cotton blanket	Baby on bed. Wrap baby in cellular cotton blanket	Baby on bed. Wrap baby in cellular cotton blanket
Cutting cord	Cut immediately recommended by author to reduce physiological jaundice. However debate highlighted. .Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat. If after pulsation, midwives check the cord with first and second finger close to vulva to avoid feeling their own pulse. In addition Mayo/Spencer Wells clamp applied to cord for 20mins to crush blood vessels, aid coagulation and reduce chance of infant bleeding from the cord .	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.
Breastfeeding	-	-	-
General baby care	Clear airway and wrap baby in cellular cotton blanket.	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar
General care	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm
Woman's position during 3rd stage	Left lateral or dorsal	Lying down with legs up	Lying down with legs up
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 4-8oz. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .
Waiting	5 minutes if oxytocic given, until uterus contracts strongly. No reason to wait for anything else.	Wait 2-4 minutes	Wait 2-4 minutes
Maternal signs of separation		-	
Signs of separation	-	-	Importance of signs of placenta in lower uterine segment highlighted. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood (2oz) – sign of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur. Mention of Brandt Andrews technique
Checking uterus	Waiting for uterus to contract strongly (2-4 minutes after baby's birth).	Waiting for uterus to contract strongly (2-4 minutes after baby's birth).	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	Left hand placed on lower abdomen bracing back upper uterine segment while fingers stretching lower uterine segment up to the umbilicus to prevention uterine inversion. This hand detects that the uterus is not being pulled down as it would be if placenta still adherent.	Left hand placed on lower abdomen bracing back upper uterine segment while fingers stretching lower uterine segment up to the umbilicus to prevention uterine inversion. This hand detects that the uterus is not being pulled down as it would be if placenta still adherent.	Left hand placed on lower abdomen pushing up and back during cord traction and called 'bracing the uterus' not guarding
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not

	Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply Kocher forceps on cord near vulva.	separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply Kocher forceps on cord near vulva.	separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply artery forceps on cord near vulva.
Placental delivery	Gentle traction on cord to begin with and continued steadily without jerking to avoid breaking the cord. Cord initially pulled down, then out as placenta descents, then up as placenta appears at the vulva – following the axis of the pelvis. Do not use Cord traction inn conjunction with fundal pressure or when fetus is macerated or premature.	Gentle traction on cord to begin with and continued steadily without jerking to avoid breaking the cord. Should the uterus relax, traction is temporarily stopped. Cord initially pulled down, then out as placenta descents, then up as placenta appears at the vulva – following the axis of the pelvis. Difficult to use cord traction in conjunction with fundal pressure or when fetus is macerated or premature.	Empty bladder. Steady tension, not traction on cord
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1971	Myles 1971	Myles 1975
Name of management	Women's bearing down effort	Fundus as a piston	Controlled cord traction (refined Brandt-Andrews technique.
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women
Timing of drug administration	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.
Consent at time of administration	Not mentioned	Not mentioned	No mentioned
Baby's position	Baby on bed.	Baby on bed.	Baby on bed. Wrap baby in cellular cotton blanket
Cutting cord	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.
Breastfeeding	-	-	-
General baby care	Clear airway. Wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar
General care	Observe general condition, keep warm. Take blood pressure –systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm
Woman's position during 3rd stage	Lying down with legs up	Lying down with legs up	Lying down with legs up
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .
Waiting	For signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 minutes after its administration. Usually wait no longer than 2-4 minutes	For signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 minutes after its administration. Usually wait no longer than 2-4 minutes	Wait 2-4 minutes
Maternal signs of separation	Pain or discomfort with contraction	Pain or discomfort with contraction	-
Signs of separation	Retro placental clot formation aids separation. Occur within 5-10 mins. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sign of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Retro placental clot formation aids separation. Occur within 5-10 mins.Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sing of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.	-
Checking uterus	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Waiting for uterus to contract strongly (2-4 minutes after baby's birth).
Guarding	-	-	Left hand placed on lower abdomen bracing back upper uterine segment while fingers stretching lower uterine segment up to the umbilicus to prevention uterine inversion. This hand detects that the uterus is not being pulled down as it would be if placenta still adherent.
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply Kocher forceps on cord near vulva.
Placental delivery	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If woman fails to expel the placenta by pushing, assistance must be given.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Gentle traction on cord to begin with and continued steadily without jerking to avoid breaking the cord. Should the uterus relax, traction is temporarily stopped. Cord initially pulled down, then out as placenta descents, then up as placenta appears at the vulva – following the axis of the pelvis. Difficult to use cord traction in conjunction with fundal pressure or when fetus is

			macerated or premature.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1975	Myles 1975	Myles 1975
Name of management	Modified Brandt Andrews	Women's bearing down effort (rarely used)	Traditional method of using fundus as a piston (rarely used).
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women	
Timing of drug administration	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete.
Consent at time of administration	No mentioned	Not mentioned	Not mentioned
Baby's position	Baby on bed. Wrap baby in cotton blanket	Baby on bed.	Baby on bed.
Cutting cord	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.
Breastfeeding	-	-	-
General baby care	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway. Wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar
General care	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Take blood pressure –systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm
Woman's position during 3rd stage	Lying down with legs up	Lying down with legs up	Lying down with legs up
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage.
Waiting	Wait 2-4 minutes	For signs of separation but not too long if syntometrine given as can cause placenta to be retained if waiting longer than 5 minutes. Usually wait no longer than 2-4 minutes	For signs of separation but not too long if syntometrine given as can cause placenta to be retained if waiting longer than 5 minutes. Usually wait no longer than 2-4 minutes
Maternal signs of separation		Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	Importance of signs of placenta in lower uterine segment highlighted. Occur within 5-10 minutes.Cord lengthens 3-4".Gush of blood (2oz) – sign of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur. Mentioned of Brandt Andrews.	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sign of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva Can take 5-40 minutes to occur.	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sing of partial separation. Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.
Checking uterus	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction. Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	Left hand placed on lower abdomen pushing up and back during cord traction and called 'bracing the uterus' not guarding	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply artery forceps on cord near vulva.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Empty bladder. Steady tension, not traction on cord	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If woman fails to expel the placenta by pushing, assistance must be given.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.
Membranes	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.	Normally just deliver spontaneously. If not, the weight of the descending placenta should strip attached chorion from uterine wall. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out. If none of these work, clamp left on membranes which will deliver spontaneously over next couple of hours.
Rationale			

Author	Myles 1981	Myles 1981	Myles 1981
Name of management	Controlled cord traction (refined Brandt-Andrews technique). Most common in Britain	Fundal pressure	Women's bearing down effort (rarely used)
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women		Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women
Timing of drug administration	Recommend with anterior shoulder, but birth of baby's head also mentioned or after third stage complete.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete.
Consent at time of administration	No mentioned	Not mentioned	Not mentioned
Baby's position	Baby on bed. Wrap baby in cotton blanket	Baby on bed.	Baby on bed.
Cutting cord	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.
Breastfeeding	-	-	-
General baby care	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway. Wrap baby in cellular cotton blanket. Assess apgar
General care	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Take blood pressure –systolic should be above 110mm
Woman's position during 3rd stage	Lying down with legs up	Lying down with legs up	Lying down with legs up
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage.
Waiting	Wait 2-4 minutes	Wait for signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 mins. Usually wait no longer than 2-4 minutes	Wait for signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 mins. Usually wait no longer than 2-4 minutes
Maternal signs of separation	-	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	-	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sing of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4" Gush of blood 30-60ml (2oz) – sign of partial separation. Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.
Checking uterus	Waiting for uterus to contract strongly (2-4 minutes after baby's birth).	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	Left hand placed on lower abdomen bracing back upper uterine segment while fingers stretching lower uterine segment up to the umbilicus to prevention uterine inversion. This hand detects that the uterus is not being pulled down as it would be if placenta still adherent.	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply Kocher forceps on cord near vulva.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Gentle traction on cord to begin with and continued steadily without jerking to avoid breaking the cord. Should the uterus relax, traction is temporarily stopped. Cord initially pulled down, then out as placenta descents, then up as placenta appears at the vulva – following the axis of the pelvis. Difficult to use cord traction in conjunction with fundal pressure or when fetus is macerated or premature.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If woman fails to expel the placenta by pushing, assistance must be given.
Membranes	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out.	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out.
Rationale			

Author	Myles 1985	Myles 1985	Myles 1985
Name of management	Controlled cord traction (refined Brandt-Andrews technique). Most common in Britain	Fundal pressure	Women's bearing down effort (rarely used)
Woman's position during 2nd stage	Left lateral mentioned	Left lateral mentioned	Left lateral mentioned
Drug type	Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women		Mentioned Prophylactic Syntometrine 1ml (syntocinon 5 units + ergometrine maleate 0.5mg) or Ergometrine 0.5mg or syntocinon 5 units for hypertensive women
Timing of drug administration	Recommend with anterior shoulder, but birth of baby's head also mentioned or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete if not already given.	Recommend with anterior shoulder, but crowning/birth of baby's head also mentioned or after third stage complete, if not already given.
Consent at time of administration	No mentioned	Not mentioned	Not mentioned
Baby's position	Baby on bed.	Baby on bed.	Baby on bed.
Cutting cord	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.	Cut immediately. Tied with plastic clamps, rubber bands, linen or tape ligature to act as haemostat.
Breastfeeding	-	-	-
General baby care	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway. Wrap baby in cellular cotton blanket. Assess apgar
General care	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Ensure bladder empty. Take blood pressure – systolic should be above 110mm	Observe general condition, keep warm. Take blood pressure –systolic should be above 110mm
Woman's position during 3rd stage	Lying down with legs up	Lying down with legs up	Lying down with legs up
Bleeding	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage .	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage	Observe amount of vaginal blood loss. Normal amount expected 60 – 210ml. Measure all blood loss and estimate spillage
Waiting	Wait 2-4 minutes	Wait for signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 minutes after its administration. Usually wait no longer than 2-4 minutes	Wait for signs of separation but not too long if syntometrine given as can cause placenta to be retained is waiting longer than 5 minutes after its administration. Usually wait no longer than 2-4 minutes
Maternal signs of separation	-	Pain or discomfort with contraction	Pain or discomfort with contraction
Signs of separation	-	Retro placental clot formation aids separation. Occurs within 5-10 minutes. Cord lengthens 3-4".Gush of blood 30-60ml (2oz) – sing of partial separation Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.	Retro placental clot formation aids separation. Occur within 5-10 minutes. Cord lengthens 3-4".Gush of blood 30-60ml (2oz) – sign of partial separation. Bulge above symphysis pubis – not always seen especially if placenta already descended into vagina. Placenta seen at vulva. Can take 5-40 minutes to occur.
Checking uterus	Waiting for uterus to contract strongly (2-4 minutes after baby's birth).	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.	Debate over necessity to do this. Suggestion unnecessary. Also period of time needed reduced by use of oxytocic drugs. Used term 'guarding' to describe manual method of observing uterus with left hand cupped lightly over the fundus and kept still. No massaging or squeezing. Highlighting that trying to push uterus towards placenta would not prevent bleeding. Waiting for uterus to be hard round and rising to umbilicus and closer to abdominal surface. To be in a state of contraction Mobility of uterus assessed with two fingers gently as very sensitive.
Guarding	Left hand placed on lower abdomen bracing back upper uterine segment while fingers stretching lower uterine segment up to the umbilicus to prevention uterine inversion. This hand detects that the uterus is not being pulled down as it would be if placenta still adherent.	-	-
Handling cord	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not. Apply Kocher forceps on cord near vulva.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.	Cord straightened of kinks by slight traction, then pressure on the cord to assess separation. If cord seen to retract back up the vagina one released, suggests not separated/ descended. Alternatively dipping fingers behind pubic bone can determine whether the cord recedes or not.
Placental delivery	Gentle traction on cord to begin with and continued steadily without jerking to avoid breaking the cord. Should the uterus relax, traction is temporarily stopped. Cord initially pulled down, then out as placenta descents, then up as placenta appears at the vulva – following the axis of the pelvis. Difficult to use cord traction in conjunction with fundal pressure or when fetus is macerated or premature.	Using left hand apply down and backward pressure to top of uterus. No undue force and no pushing into the pelvis. Right hand receives the placenta, joined by second hand as placenta emerges.	Expulsion by nature with woman squatting. If dorsal, encourage woman to breath hold and bear down while midwife provides abdominal support with both hands below the umbilicus (bracing uterus to facilitate delivery). If woman fails to expel the placenta by pushing, assistance must be given.
Membranes	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out.	Normally just deliver spontaneously. The placenta can be twisted round to rope the membranes if adherent, or artery forceps can be applied and use to lever membranes out.
Rationale			

Author	Myles 1989 (new editors)	Myles 1989 (new editors)	Myles 1989 (new editors)
Name of management	Active management (most common)	Fundal pressure (if cord snaps following cord traction)	Passive management
Woman's position during 2nd stage	Not mentioned	Not mentioned.	Not mentioned
Drug type	Prophylaxis: Syntometrine 1ml IM with anterior shoulder oxytocic of choice or ergometrine 0.5mg IM (rarely used) Treatment: Ergometrine 0.25mg IV (no more than 2 doses)	Prophylaxis: Syntometrine 1ml IM with anterior shoulder oxytocic of choice or ergometrine 0.5mg IM (rarely used) Treatment: Ergometrine 0.25mg IV (no more than 2 doses)	Only if uterus not well contracted
Timing of drug administration	Prophylaxis: Usually anterior shoulder but could be at crowning if ergometrine used.	Prophylaxis: Usually anterior shoulder but could be at crowning if ergometrine used.	
Consent at time of administration	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.
Baby's position	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around.	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around.	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around.
Cutting cord	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.
Breastfeeding	-	-	During 3rd stage to aid process of placental delivery.
General baby care	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar	Clear airway and wrap baby in cellular cotton blanket. Assess apgar
General care	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes. Also physical support from father to maintain position for delivery of placenta.
Woman's position during 3rd stage	Dorsal: easier to cuddle baby and to assess uterus	Dorsal: easier for the woman to cuddle her baby and for midwife to assess the uterine contractions.	Woman's preference + normality of progress + experience/confidence of midwife + need for access to review blood loss and contracting uterus. Recommend upright/kneeling/squatting to aid placental expulsion. However help cuddling baby will be needed.
Bleeding	Sterile receiver against perineum to collect blood loss.	Sterile receiver against perineum to collect blood loss.	Upright position to more readily assessing blood loss.
Waiting	Wait till uterus contracts	Wait till uterus contracts	Wait for signs of separation
Maternal signs of separation	-	-	-
Signs of separation	Debate over waiting for signs highlighted but no description of signs provided.	Assessed for but not described.	Importance of assessing these stressed and described as: small fresh blood loss, cord lengthening, fundus rounder, smaller and rising in abdomen and more mobile. Patience, calm and confidence highlighted as important attributes for midwife.
Checking uterus	Drape abdomen and place light hand on fundus. Do not manipulate uterus.	Ensure uterus well contracted and placenta separated.	Monitor uterine action by light abdominal palpation of fundus.
Guarding	Not called guarding, but referred to as 'counter pressure' with application of hand on lower abdomen pushing uterus up and back. Not to be released until cord traction ceased.	-	-
Handling cord	Reapplication of clamp on cord close to vulva or cord wounds around midwives fingers to apply tension without losing grip. Avoid jerky movements. Cord traction down and back following curve of birth canal.	-	-
Placental delivery	Cup placenta in hands as it appears at vulva.	Woman relaxes while midwife exerts downwards and backwards pressure on abdomen at the uterine fundus.	When good uterine contraction sustained, midwife encourages woman to push, resulting in spontaneous placental delivery.
Membranes	Move placenta up and down in hands to release pressure on membranes until they deliver	-	
Rationale			

Author	Myles 1993	Myles 1993	Myles 1993
Name of management	Active management (most common)	Fundal pressure (if cord snaps following cord traction)	Passive management
Woman's position during 2nd stage	Not mentioned	Not mentioned.	Not mentioned
Drug type	Prophylaxis: Syntometrine 1ml IM with anterior shoulder oxytocic of choice or ergometrine 0.5mg IM (rarely used) Treatment: Ergometrine 0.25mg IV (no more than 2 doses)	Prophylaxis: Syntometrine 1ml IM with anterior shoulder oxytocic of choice or ergometrine 0.5mg IM (rarely used) Treatment: Ergometrine 0.25mg IV (no more than 2 doses)	Only if uterus
Timing of drug administration	Prophylaxis: Usually anterior shoulder but could be at crowning if ergometrine used.	Prophylaxis: Usually anterior shoulder but could be at crowning if ergometrine used.	
Consent at time of administration	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.	Discussed antenatally and explained. Women can refuse. No consent at time of administration mentioned.
Baby's position	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around. Mentioned baby on surface delivered onto or on mother's abdomen	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around. Mentioned baby on surface delivered onto or on mother's abdomen	Varies, but significance of over/under transfusion to baby highlighted if cord not cut and baby moved around. Mentioned baby on surface delivered onto or on mother's abdomen
Cutting cord	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.	Cut between 2 clamps applied 8-10cm from umbilicus. Timing of cutting not critical. Debate highlighted between early clamping (1-3mins) and late clamping (after pulsation stopped). Also may have been cut at delivery if around the baby's neck.
Breastfeeding	-	-	During 3rd stage to aid process of placental delivery.
General baby care	Clear airway and wrap baby in cellular cotton blanket. Assess apgar and apply identification labels	Clear airway and wrap baby in cellular cotton blanket. Assess apgar and apply identification labels	Clear airway and wrap baby in cellular cotton blanket. Assess apgar and apply identification labels
General care	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes	Comfort stops mentioned and warmth: wedges, pillows, clean bed linen and extra clothes. Also physical support from father to maintain position for delivery of placenta.
Woman's position during 3rd stage	Dorsal: easier to cuddle baby and to assess uterus	Dorsal: easier for the woman to cuddle her baby and for midwife to assess the uterine contractions.	Woman's preference + normality of progress + experience/confidence of midwife + need for access to review blood loss and contracting uterus. Recommend upright/kneeling/squatting to aid placental expulsion. However help cuddling baby will be needed.
Bleeding	Sterile receiver against perineum to collect blood loss.	Sterile receiver against perineum to collect blood loss.	Upright position to more readily assessing blood loss.
Waiting	Wait till uterus contracts	Wait till uterus contracts	Wait for signs of separation
Maternal signs of separation	-	-	-
Signs of separation	Debate over waiting for signs highlighted but no description of signs provided.	Assessed for but not described.	Importance of assessing these stressed and described as: small fresh blood loss, cord lengthening, fundus rounder, smaller and rising in abdomen and more mobile. Patience, calm and confidence highlighted as important attributes for midwife.
Checking uterus	Drape abdomen and place light hand on fundus. Do not manipulate uterus.	Ensure uterus well contracted and placenta separated.	Monitor uterine action by light abdominal palpation of fundus.
Guarding	Not called guarding, but referred to as 'counter pressure' with application of hand on lower abdomen pushing uterus up and back. Not to be released until cord traction ceased.	-	-
Handling cord	Reapplication of clamp on cord close to vulva or cord wounds around midwives fingers to apply tension without losing grip. Avoid jerky movements. Cord traction down and back following curve of birth canal.	-	-
Placental delivery	Cup placenta in hands as it appears at vulva.	Woman relaxes while midwife exerts downwards and backwards pressure on abdomen at the uterine fundus.	When good uterine contraction sustained, midwife encourages woman to push, resulting in spontaneous placental delivery.
Membranes	Move placenta up and down in hands to release pressure on membranes until they deliver	-	
Rationale			

Appendix nineteen: Personal details of interviewed midwives

Married	Single	Divorced
35	11	1

Years qualified

<5yrs	5-9	10-14	15-19	20-24	25-29	30-34
11	12	10	3	2	6	3

(including 3 midwives qualified a year or less)

Gender	Male	Female
	1	46

Ethnicity

White	Indian Asian	Chinese	Iranian	Mixed race
42	2	1	1	1

Date qualified

<65	65-69	70-74	75-79	80-84	85-89	90-94	95-99
1	3	5	3	3	9	15	8

NoChildren : 16 **Children** : 31

Current post

E	F	G	DS manager	Manager scale 7
11	21	12	1	1

Age

<25	25-29	30-34	35-39	40-44	45-49	50-54	55-59
1	5	7	15	1	10	5	3

Hospital and team worked for

Trust B		Trust A		Trust B (midwifery unit)	
Ward one	2	Team one	9		
Ward two	4	Team two	2		
Group practice	3	Team three	3		
Rural community team	1	Team four	2		
Urban community team	2	Team five (int)	2		
Antental core staff	1	Antental Core	1		
Labour ward core staff	4	Delivery suite core	1		
		Group practice	1		
		Team six	2		
		Team seven	4		
		Ward co-ordinator	1		
Total	**17**	**Total**	**28**	**Total**	**2**

Place of work

Hospital	Community	Integrated	Caseload
32	7	5	3

TRAINING

Locally trained	Trained outside the area	Data not available
31	14	2

Type of course	Certificate	Diploma	Degree
	34	9	4

Length of course	18m	1 yr	21m	2yrs	2 ¼ yrs	3yrs	4yrs
	27	9	1	1	1	4	4

Professional qualification on entry

Postnursing	Direct entry
36	11

Appendix twenty: Descriptions of third stage practice by interviewed midwives

Active management descriptions

Midwife	One	Two	Three	Four
Name of management	Active management	Managed 3rd stage	Active sort of management	Active management
Women's position for birth	Semi-recumbent normally All 4s	Varies Kneeling Left lateral	Various	Semi recumbent
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before or after umbilical cord cut. Usually 3-5 minutes	After cord cut 3-5 minutes	Varies. Can be before or after cord cut	After cord cut Within 2 minutes
Consent at time of drug administration				
Baby's position	Mother's arms or bed	Mother's arms	Bed or abdomen	Mother's arms
Cutting cord	5 minutes No hurry Cord stopped pulsating	No hurry 2-3minutes	Within 2 minutes Use cord clamp and second clamp	Within 2 minutes After syntometrine Use cord clamp and second clamp
Breastfeeding	-	-	-	-
General baby care	-	-	-	Wrap in clean towel. Replace wet towels.
General care	-	-	-	-
Women's position during 3rd stage	Move to semi-recumbent	Sitting to make comfortable	Move to semi recumbent	Semi recumbent
Assessment of bleeding	-	-	-	-
Waiting	-	-	-	Wait a couple of minutes
Symptoms of separation	-	-	Woman may feel placenta coming.	-
Observed signs of separation	Observe for these but what they are not specified.	Wait for signs: cord lengthening and trickle of blood.	Wait for things to separate first. Signs:- Small trickle of blood, cord lengthening. 5 minutes	Wait for signs:- some cord lengthening, may or may not see small separation bleed.
Checking of the uterus	Palpate uterus to check contracted and placenta separated	Gently palpate to check uterus contracted.	Feel uterus to see if well contracted. Applying pressure above symphysis and assessing cord retraction assists in determining placental separation.	Feel uterus contracted before applying CCT.
Guarding	Apply pressure with left hand above SP in upward direction	Left hand above SP pressing very gently up towards woman.	Guard by holding uterus.	-
Handling cord	Wrap fingers around cord twice and pull in a downward direction.	2nd clamp close to vulva. Traction down and out.	Put clamp on unless cord thin. Then wrap around fingers and downward traction	Right hand on clamp close to introitus. Firm, downward traction but not hard and relentless. Traction follows curve in pelvis.
Placental delivery including maternal effort category	Placenta usually delivers spontaneously and drops into a bowl made ready by midwife.	Slow release of pressure on cord and gently ease placenta into kidney shaped dish with both hands.	Left hand brought down to cup placenta as delivered or placenta delivered directly into a bowl.	Cord lifted up and left hand brought down to support placenta as delivers. Maternal effort to delivery placenta may be used, but not with traction.
Membranes	-	Tease membranes with forefinger of left hand under membranes applying gently pulling or wiggling motion if still attached.	Spontaneously deliver. If dragging behind, use up and down motion to deliver.	Spontaneously deliver or bring membranes over finger and move fingers up and down (wiggle them) to release membranes. Clamp to membranes if necessary.
Delay management	-	-	-	-

Midwife	5	6	7	8
Name of management	Active management	Giving drug	Active management	Active management
Women's position for birth	Semi recumbent	Various: standing, all 4s. kneeling, on back	Usually semi recumbent; upright; kneeling	Woman's choice - various
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Immediately after birth before cord clamped	At crowing or anterior shoulder or if alone straight after birth before cord clamped	After baby born, before cord clamped and cut unless baby needs resuscitation	Anterior shoulder or if alone before or after cord clamped. Occasionally linked to cord pulsation
Consent for drug administration	-	-	-	-
Baby's position	Mother's abdomen	Abdomen	On bed briefly then Mother's tum.	Abdomen
Cutting cord	Soon after syntometrine	No rush, 2-3 mins after syntometrine. Clamp removed to bleed cord if delay occurs.	Immediately after syntometrine. Cord clamp and second clamp then cut.	Varies, Synonymous with syntometrine
Breastfeeding	-	If delay in placental separation	If placental delay or if mum and baby ready and stated in care plan.	-
General baby care	-	-	Check breathing	-
General care	-	-	-	-
Women's position during 3rd stage	Semi Recumbent	Sitting or semi recumbent	Sitting upright	Sitting/semi recumbent
Assessment of bleeding	-	-	-	-
Waiting	-	Wait for signs of placental separation	Wait for syntometrine to work and signs of separation	Wait for signs of placental separation
Symptoms of separation	-	Woman experiences tightening	-	-
Observed signs of separation	Occur about 5 mins. Midwife notices a little bleed	Cord lengthening, some blood loss and woman aware of separation.	Cord length and gush of blood leads to action with cord traction.	Wait for signs:- trickle of blood and cord lengthening.
Checking of the uterus	Gentle hand on abdomen till uterus risen.	Ensure uterus well contracted with hand on abdomen.	Usually keep hand on uterus.	Rest hand on top of uterus to assess contracted and placenta separated.
Guarding	Left hand above SP pushing back gently.	Straighten lower segment with left hand above SP by pushing down and up slightly.	One hand above SP steadying uterus back.	One open hand pressing above SP across pubic bone.
Handling cord	Twist cord round fingers of right hand. Pull down into bed unless resistance. Use a clamp for fragile cords.	Varies. Wrap cord around finger unless thin, When use clamp. Downward pull to see if coming.	Twist cord in fingers and pull down in to bed until placenta at vulva.	Wrap cord around thumb and finger and pull downwards quite hard and steadily. Not constant. Stop if any resistance.
Placental delivery including maternal effort category	Lift placenta out by cord as placenta's weight supported by left hand.	Cord lifted up and placenta cupped with left. Both hands required for a Matthew Duncan presentation. Maternal effort sometimes used if urge present, but without cord traction.	Cord held upward with right hand and placenta delivered into cupped left hand. Maternal effort used sometimes if cord did not feel secure.	Two hands lift placenta up and into kidney dish on bed.
Membranes	Twist placenta to rope membranes. If membranes tearing, use a clamp to hold them and either gently pull or ask woman to cough.	Spontaneously deliver. If lagging behind, use forceps to pull membranes down to ease them out.	Twist placenta to wind membranes into a cord and then ease them up and down. If tearing, stop pulling and use a clamp to ease them out.	Finger and thumb to ease membranes with gently pulling motion. Wait a minute if necessary.
Delay management	-	-	-	-

Midwife	9	10	11	12
Name of management	Active management	Active management	Active management	Active management
Women's position for birth	Various: all 4s, semi recumbent, squatting	All 4s	Upright or semi recumbent	Semi recumbent
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before cord clamped unless a problem with the baby. Within 1 min	After cord clamped, within 5 minutes	After cord clamped. Within 2 minutes	After cord clamped 2-5 minutes
Consent for drug administration	-	-	-	-
Baby's position	Mother's arms	Posted through legs on to bed	On bed	Mother's arms
Cutting cord	In 2 mins. Hollister clamp and Spencer Wells then cut by midwife or father	Within 5 mins. No hurry. Clamp twice and then cut by partner	Within 1 min. Cord clamp + regular clamp then cut	Within 2 mins. Immediately baby born.. Midwife or father to cut.
Breastfeeding	-	-	-	-
General baby care	Get a blanket. Name bands.	Sort baby out.	Dry to stimulate	-
General care	Put receiver/white towel ready for placenta.	-	Change gloves	-
Women's position during 3rd stage	Depends on delivery pos't haunches, semi recumbent, sitting back (squatting)	All 4s or semi recumbent	Whatever woman wants – many choose to sit/lay	Semi recumbent
Assessment of bleeding	-	-	Heavier blood loss noted with Syntocinon.	-
Waiting	For signs of placental separation – about 10 minutes	No reference to waiting.	Wait for contraction	For signs of placental separation + uterus well contracted – 10 mins
Symptoms of separation	Midwife asks woman how she is feeling and whether she has any 'pains'.	-	-	-
Observed signs of separation	Good gush, then stops. Pain/contraction, cord lengthening and tummy rears up.	Used to look for signs but not now. Some-times notice cord lengthening, trickle of blood.	Don't wait for signs but may notice trickle of blood and cord lengthening.	Cord length, blood loss and uterine contraction.
Checking of the uterus	Feel uterus for signs of separation; cricket ball feel. Cannot always tell when separated but can always tell when contracted.	Hand gently on uterus to check whether contracted.	Hand lightly on uterus to feel tense contraction. More important than visual signs.	Palpate to ascertain contraction, then take hand off to avoid fiddling.
Guarding	Counter traction with hand on uterus to keep uterus back.	Don't guard. May rest hand above SP but doing nothing.	Hand over SP with slight amount of pressure down and back	Used to apply pressure with left hand and guard uterus. Don't do it any more as rely on signs of separation.
Handling cord	Twist cord around finger and pull down, Consistent pressure.	Hold 2nd clamp on cord with right hand. If no resistance pull down into bed or up if woman on all fours.	Clamp near introitus used to pull cord down. If cord coming, move up clamp as necessary and continue pulling.	Gentle constant pressure of cord with fingers either side of clamp, down into bed. When see placenta, move traction up
Placental delivery including maternal effort category	Left hand cups placenta. If delay , Maternal effort used if placenta separated.	Left hand cups placenta. Woman asked to cough if delay or cord snaps. Fundal pressure mentioned for delay but not practised.	Cord is moved upwards with right hand and left hand cups placenta for delivery. If delay encourage pushing but not at the same time	As placenta appears, lift cord up with right hand and deliver placenta straight into bowl held close to vagina in left hand.
Membranes	Varies. Sometimes twist membranes to lever out gently; occasionally use a forceps clamp to lift them out in up and down motion.	Gently tease membranes out with hand. If resistance, ask woman to cough.	Membranes come out on their own. If slow, move placenta up and down If stuck in vagina, use a clamp to ease them out.	Spontaneously deliver. If reluctant to come, gently move them. If friable, use a clamp on them to ease membranes out.
Delay management	-	-	-	-

Midwife	13	14	15	16
Name of management	Active management	Active management	Active third stage	Traditional or active management
Women's position for birth	Various; pool, all 4s	Semi recumbent	Various	Semi recumbent
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	At birth before cord clamped unless mum wants clamping delayed.	Usually before cord clamped. May forget to give it.	Anterior shoulder. If alone, before cord clamping unless baby needs resuscitation	Immediately after birth before Cord clamped and cut as alone for delivery.
Consent for drug administration	-	-	-	-
Baby's position	Bed or tummy*	Tummy	Tummy* or bed	Tummy usually
Cutting cord	After syntometrine. Within 1 minute.Cord clamp and second clamp then cut. Remove clamp to bleed cord for easier placental delivery.	Cord cut around neck or 2-5 minutes after. No hurry.	After syntometrine. 2 forceps. Speedy.	2 minutes. 2 clamps Midwife or partner to cut. Bleed cord in situ if Rh –ve. Bleed cord for easier placental delivery if necessary.
Breastfeeding	-	Routinely used	-	-
General baby care	-	Baby satisfactory and colour OK. Covered with a towel and kept warm. Apgar.	-	Wrap it up and look at baby.
General care	-	Forceps in kidney dish underneath buttocks.	-	-
Women's position during 3rd stage	Majority semi recumbent; Get out of pool, maybe standing/squatting	Semi recumbent	Semi recumbent	Semi recumbent
Assessment of bleeding	-	Observe for bleeding with hand on fundus	Observe for bleeding and if occurs, feel uterus.	Observe vaginal loss.
Waiting	Wait for signs of placental separation.	Less hurried gives better results	Wait for signs of placental separation and next contraction– 3 mins	Wait for signs of separation unless bleeding. 5-10 mins
Symptoms of separation	-	-	Woman may experience pain if no epidural.	-
Observed signs of separation	Trickle of blood.	Slight cord lengthening, gush of blood,	Vaginal blood loss and lady having a 'pain'.	Cord lengthening, but still wait for uterine contraction.
Checking of the uterus	Feel for separated placenta.	Constant hand on abdomen to palpate contraction and note when risen , narrows and becomes mobile.	Feel to make sure contracted and 'fallen a bit'.	Hand on uterus to assess for contraction. Can tell if separated:- hard, firm, risen in abdomen.
Guarding	Lightly guard uterus just above SP and gently push up with hand while pulling on cord.	Pressure on lower abdomen above SP pushing back and down. Provides counter traction	Put left hand above SP and apply gentle counter pressure to cord traction.	Left hand above SP and pressing down and upwards.
Handling cord	Use clamp, nearer to woman.	Right hand on clamp close to introitus or wrapped around fingers. Gentle steady pulling in downward direction.	Hold forceps and loop around fingers. Pull into bed constantly. Stop pulling if any resistance.	Use clamp rather than fingers. Give traction into bed, continuous and quite firm.
Placental delivery including maternal effort category	Cord pulled up with right hand and placenta delivered directly into a bowl.	Raise cord up through 180 degrees until placenta ¾ delivered. Then drop cord and cup placenta in both hands.	Cord pulled upwards. Placenta drops into left hand ready to receive it.	Bring left hand down to cup placenta. Matthews Duncan presentation:- Use both hands to cup placenta
Membranes	Spontaneous or placenta twisted around to gently deliver. If membranes friable or breaking, use a clamp to ease them down.	Membranes slip out if intact. If ragged or torn, use weight of placenta to deliver. If stuck in cervix, use a clamp to tease them out.	Let membranes fall out. If trailing use forceps and/or ask woman to push/cough	Membranes slip out. If stuck, forceps used to hold membranes and move in an up and down motion to ease them out.
Delay management	Empty bladder, wait, change woman's position or sit on a bedpan.	Empty bladder.	-	-

Midwife	17	18	19	20
Name of management	With syntometrine	Active management	Active management	Partially managed 3rd stage
Women's position for birth	Semi recumbent or side	Kneeling most common	Woman's choice; semi recumbent mostly also left lateral and all 4s	Varies
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Straight after birth before cord clamped and cut	Just after birth before cord clamped.	Anterior shoulder. If alone before cord clamped and cut.	Within 20 seconds of birth, before cord clamped.
Consent for drug administration	-	-	-	-
Baby's position	Arms or bed	Floor in front of mum then to dad	Mum's stomach or bed	Mum's abdomen if she wants it
Cutting cord	With syntometrine. Cord clamp then other clamp then cut.	After syntometrine. Cord clamp then clamp and cut	3 minutes. Stopped pulsating. Cord clamp and clamp, then cut.	3-4 minutes. No hurry. Cord clamp and forcep, then cut.
Breastfeeding	-	-	-	-
General baby care	Wrap and wipe and give to mum or dad.	Wrap and deal with baby. Give to dad.	-	-
General care	-	-	-	Receiver ready to accept placenta.
Women's position during 3rd stage	Semi recumbent	Sit/flop	Sitting	Move to Sitting
Assessment of bleeding	Observe for bleeding.	-	-	Observe for immediate blood loss within normal limits.
Waiting	Wait for 5 minutes for placental separation	No waiting.	Wait for cord pulsation to stop (3 minutes) + uterus well contracted.	Wait a few minutes – no reason given (3-4 mins).
Symptoms of separation	-	Midwife asks woman to tell her when she feels abdo pain / contraction.	-	-
Observed signs of separation	See if any signs present: risen + elongated uterus.	Don't' wait for signs but they refer to cord lengthening and a bit of blood. Notice woman grimace.	Wait for separation:- cord lengthening and trickle of blood.	Observe woman's abdomen. Bleeding and descent of cord. 5-8 minutes.
Checking of the uterus	At 5 mins check uterus risen, well contracted, elongated vertically. Can assess cord recession with use of SP pressure	Either woman tells you she has a contraction or midwife feels uterus contracted. Don't leave hand there.	Hand on fundus straight away – feel uterus contracting and rising up.	After 5-8 minutes, hand on fundus to check if contracted, not to press.
Guarding	Hold thumb and forefinger at angle of 45 degrees on SP pressing towards top of bed.	Used to guard when trained, but don't do this now.	Hand over SP holding uterus back while doing cord traction.	Hand on uterus above SP. Pressure only in resistance to woman's pushing.
Handling cord	Clamp on cord close to introitus and wrapped around fingers. Pull down into bed with constant pressure, but not too much.	Hold cord in thumb and finger or with clamp. Steady traction down and out, then lift up as placenta appears.	Wrap cord around finger. Downward constant traction, reasonably strong	Cord traction if woman tired, not co-operative or placenta not delivered. Cord round fingers and gentle constant firm pressure.
Placental delivery including maternal effort category	Maternal effort -catch in receiver. If cord traction used, 1 or 2 hands used to cup placenta. Fundal pressure for delay/cord snapped; squeeze fundus towards woman's feet. Can use upright posture	Left hand cups placenta as delivered, while right hand remains on the cord. If delay – woman pushes a bit.	Right hand applies traction and left hand catches placenta. Delay:- vaginal examination following cord to check placenta separated. If separated, encourage pushing.	Maternal effort. If cord traction used, right hand lifts placenta up by cord and placenta delivered into left hand first then both hands when almost delivered.
Membranes	Spontaneously deliver or if trailing, ease out with 2 fingers applying slight traction. If Matthew Duncan separation, use a clamp on membranes to tease them down in up and down action.	Gently ease trailing membranes out. If ragged, twist placenta to tope membranes.	Twist/turn placenta over your hand to coil membranes to ease them out.	Come out on their own. If ragged, gently work placenta up and down in hands, to ease them out. Occasionally ask woman to cough or use forceps on membranes if necessary.
Delay management	-	Ask woman to push a bit.	-	-

Midwife	21	22	23	24
Name of management	Active management	Active management	Active management	Active management
Women's position for birth	Upright on bed	Semi recumbent (80%), left lateral, all 4s	Not identified	Semi recumbent
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before cord clamping straight after birth.	Before cord clamping, after checking that baby is breathing,	Lost data on tape	Anterior shoulder. If alone, soon after birth, before cord clamping.
Consent for drug administration	-	-	-	-
Baby's position	Abdomen or bed	Tummy or between legs	No data	Abdomen* or bed
Cutting cord	After syntometrine. 2 minutes.	Baby clamp and silver clamp.2-5 minutes Midwife or dad to cut.	No data	Don't wait. Cord clamp, then other clamp and cut. Midwife cuts.
Breastfeeding	-	-	Part of third stage	If mum wants or if delay in placental separation.
General baby care	-	Dry	-	-
General care	-	Check mum for PPH	Clean and tidy. Pull cord to unravel in vagina.	-
Women's position during 3rd stage	Upright on bed	Mostly semi recumbent but depends on delivery position	Semi recumbent	Semi recumbent
Assessment of bleeding	-	Check mum for PPH by looking.	-	-
Waiting	Wait for signs of placental separation – within 5 minutes	Wait for 10 minutes the feel uterus.	Wait for syntometrine to work and for signs of separation.	Wait for signs of placental separation and uterus being well contracted.
Symptoms of separation	-	-	-	-
Observed signs of separation	Wait for signs:- cord length, visible signs of bleeding. 5 minutes.	Cord lengthening and any trickle of blood.	Wait for signs but signs not identified.	Wait for signs:- cord lengthening, trickle of blood, uterus rising.
Checking of the uterus	Palpate uterus to check if well contracted.	At about 10 minutes, feel tummy to assess if separated (hands off principle).	Watching and waiting. After about 5 minutes quick feel of uterus and straighten cord out.	After 2-3 minutes, hand on fundus to wait for contraction and signs of separation:- cricket ball and slightly narrower.
Guarding	Left hand above SP, applying very gentle pressure in towards the woman.	Left hand above SP, applying little bit of pressure down and back towards woman's head.	Hand on stomach above SP, but not guarding – just where hand is.	Left hand down to SP and pushing up towards umbilicus.
Handling cord	2nd clamp used to apply traction. If little resistance keep on pulling firmly but gently into bed or direction of floor.	Clamp between two fingers. Pull into bed and when placenta appears at vaginal, lift upwards.	Right hand wrapped around cord. Gentle tug to tell whether placenta in vagina, then consistent downward traction.	Wrap cord around fingers. Downward traction, gentle constant, steady pull.
Placental delivery including maternal effort category	Right hand holding on to cord and placenta delivered directly into a bowl.	-	When placenta bulges in vagina either woman will give an involuntary push or placenta pops out spontaneously,	Right hand continues to apply traction in direction of curve of cares until placenta delivered into left hand.
Membranes	Ask woman to cough if membranes trailing behind. If does not work, use artery forceps on membranes to milk them backward/forward action to release.	Tickle membranes out by shaking placenta a little bit up and down and use weight of placenta to ease them out.	If membranes trailing, get woman to cough. If this doesn't work, gently pull them either with fingers or a clamp (especially useful if membranes friable).	If trail, use a clamp on edge of membranes and apply up and down motion and ask woman to cough.
Delay management	-	Ask woman to squat and cough.	-	Consider a full bladder and catheterise if necessary. Bedpan of no epidural in situ. Breast-feeding. Fundal pressure when all else fails:- left hand presses down on uterus fairly firmly.

Midwife	25	26	27	28
Name of management	Active management	Active management	Active management	Active management
Women's position for birth	Back or side	Various Semi recumbent Kneeling All 4s	Various Kneeling most common	Various
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Usually given after cord clamping, but may be before 1-2 minutes	Varies according to situation. Can be before or after cord clamping but usually after. Within 1 min	Immediately after birth, usually before cord clamping. No rush	After cord clamping usually, before if baby needs help.
Consent for drug administration				
Baby's position	Tummy/bed 50:50	Abdomen or bed	Abdomen or bed	Mum's tummy regardless
Cutting cord	Before syntometrine. 1-2 minutes	2 Spencer wells then cut Within 1 minute Before/after syntometrine	Delay after syntometrine. Waiting for pulsation to stop if requested by mum. No rush. 2 minutes	Quickly and first usually. Midwife or partner to cut
Breastfeeding	-	-	-	-
General baby care	-	Wrap baby and to mum.	-	-
General care	-	-	-	-
Women's position during 3rd stage	Semi recumbent	Depends on delivery position: Easier in semi recumbent	Move to semi recumbent	Semi recumbent most common All 4s
Assessment of bleeding	-	-	-	-
Waiting	Wait for signs of placental separation but do not always occur. Always wait for uterus to be contracted.	Wait for syntometrine to work – 2-3 minutes.	-	Wait for signs of placental separation but not too long as may lead to retention of placenta. 5 minutes.
Symptoms of separation	-	If woman doesn't feel a thing, then midwife checks uterus. Women usually say 'there's something coming'.	-	-
Observed signs of separation	Don't always wait as don't often get them:- cord lengthening and gush of blood.	Don't always have cord lengthening, go more with blood loss. 5 mins.	Apparent cord lengthening and blood loss. Feel uterus to assess if gone down.	Trickle of bleeding and cord lengthening.
Checking of the uterus	Guard uterus to feel it rise or make sure it's not soft. Keep it on. Will ballot when separated.	After 5 minutes feel uterus well contracted if woman couldn't feel anything.	After signs, feel fundus to assess whether gone down.	After signs, feel fundus well contracted.
Guarding	Left hand above SP to feel if uterus being pulled down. Hand pushing back.	Left palm and fingers above SP applying pressure with flat of hand. Keeps uterus back.	Left hand protects uterus above SP. Can feel uterus just sitting there.	Bridge with left hand. Sometimes do / sometimes not. Don't push as can be painful.
Handling cord	Use clamp and wrap around fingers. Steady pull down. Sometimes pull quite hard.	2 fingers either side of Spencer Wells on cord. Little bit of a pull with woman bearing down.	Use clamp to apply traction in a downward direction. Carry on if 'coming away'.	2 fingers either side of clamp on cord. Downward steady traction but stop if resistance.
Placental delivery including maternal effort category	Catch placenta in hands.	Usually maternal effort, especially if upright. Woman delivers placenta directly into bowl held by midwife.	Explain to woman what is going to happen . Upward traction on cord, placenta delivered into receiver close to the vagina.	Right hand applies upward cord traction and placenta delivered into bowl.
Membranes	Spontaneously deliver or can twist placenta to get membranes. If trailing, use an up and down motion with clamp attached to membranes.	Can be spontaneous. If tension on membranes, use Spencer Wells close to vulva and up and down motion to get them	Spontaneous delivery of membranes or use a clamp to retrieve them from the vagina.	Try to wind membranes if they are trailing, either using placenta to rope or use a clamp on membranes to deliver them.
Delay management	-	-	-	-

Midwife	29	30	31	32
Name of management	Active management	Treatment with syntometrine	Active management	Active management
Women's position for birth	Various	Semi recumbent	Most Semi recumbent	Woman's choice: 60% semi recumbent, 30-40% upright
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before cord clamping Within first minute or two.	Straight after birth before doing anything else	Anterior shoulder or if alone, then immediately before cord clamping.	Anterior shoulder or straight after if alone. Note time given
Consent for drug administration	-	-	-	-
Baby's position	Abdomen	Tummy or bed	Bed first then mum later	Briefly on green gown on bed then to mum
Cutting cord	No waiting. At same time as syntometrine	No hurry. 5-10 minutes, when convenient. Dad or midwife to cut.	Clamp cord quickly and unravel into kidney dish. 1 min., after syntometrine	Immediately after birth.
Breastfeeding	-	-	-	-
General baby care	Checking baby.	Make a fuss of baby. Dry, change towel, keep warm.	-	-
General care	Making mum comfortable	Change gloves, tidy up first.	-	-
Women's position during 3rd stage	Semi recumbent or squatting	Semi recumbent	Semi recumbent	Move to semi recumbent
Assessment of bleeding	-	-	Change action if bleeding occurs.	Check for blood loss after cord clamping.
Waiting	-	Don't rush it.	-	Waiting for uterus to be contracted and signs of separation, but not long.
Symptoms of separation	Mum gets uncomfortable.	-	-	-
Observed signs of separation	Uterus contracted, trickle of blood, cord seeming to lengthen, and woman getting signs. If don't happen, wait for uterus to be well contracted.	Don't wait for sings – miss them anyway. Occur 5-15/20 minutes after baby's birth.	Don't wait for signs, uterus being well contracted most important. Trickle of blood and cord lengthening may occur.	Cord lengthening and trickle of blood.
Checking of the uterus	Immediately after cord clamped, hand laid on abdomen to feel when well contracted. Left there all the time.	Feel uterus to make sure well contracted before continuing.	After 2-5 minutes check uterus well contracted by palpation.	Check uterus well contracted within a minute.
Guarding	Don't guard, just gentle traction.	Left hand above SP supporting uterus.	Guard	Left hand firmly hold above SP supporting / guarding uterus
Handling cord	Controlled cord traction. Wrap cord around fingers or use artery forceps for leverage. Pressure in direction baby born – down at first, then up. Intermittent pulling.	Maternal effort Wrap cord around fingers, but no traction applied.	Apply traction in gentle but strong way. Keep pressure there. Give it time to 'feel it give a bit'.	Tug to see if placenta separated as part of signs. 2 fingers either side of clamp on cord and pull. Reposition clamp close to vulva as necessary. Intense, continuous and downward pressure
Placental delivery including maternal effort category	Cord traction applied and placenta delivered into a bowl.	Choice of maternal effort (placenta pops into a receiver spontaneously) or if woman does not have enough oomph, use cord traction. Cord traction applied till placenta delivered.	Let go of traction on cord and cup hands to receive placenta or lift dish and using cord, guide placenta directly into a receiver.	Modified Brandt Andrews. Take hand off cord and cup placenta in both hands to deliver
Membranes	Same as expectant management. Little cough from woman if they get slightly stuck.	Put finger in vagina and wiggle membranes to slide them out.	Turn placenta or clamp membranes or use fingers or hand to aid delivery. Twisting cord around clamp sometimes useful.	Easing placenta up and down in hand. Occasional use of clamp needed to twist long membranes.
Delay management	-	-	-	-

Midwife	33	34	35	36
Name of management	Using syntometrine or Active management	Active management	Active management	It's not physiological, it's the other one
Women's position for birth	50% Semi recumbent, 25% left lateral, 25% kneeling/all 4s	What woman wants: all 4s, kneeling, 50% semi recumbent	All 4s, semi recumbent, standing	Varies: left lateral or on the bed
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before or after cord clamping. No hurry. 2-5 minutes	Before cord clamping	After cord clamping. Within 1 minute of birth	Anterior shoulder. If alone, can be before or after cord clamped, but given within 1 minute.
Consent for drug administration	-	-	-	-
Baby's position	Usually tummy	Tummy* or bed	To mum to hold or dried and to partner	Tummy* or bed
Cutting cord	Wait for pulsation to stop. 2-4 minutes.	Wait till pulsation stopped if baby OK. 2 mins. Midwife or dad to cut.	Quickly. Within 1 minute. Before syntometrine.	+/- waiting for pulsation to stop. More or less straight away.
Breastfeeding	-	-	-	When delay with placental delivery
General baby care	Wrap. Assess for cold, changing towels.	Neaten cord.	-	-
General care	-	Tidy my mum up a bit. Receiver there to collect placenta.	-	Change gloves, clean sheets, and kidney dish between legs.
Women's position during 3rd stage	Semi recumbent / sitting upright for gravity	Semi recumbent	On to back	Semi recumbent
Assessment of bleeding	--	Wait unless bleeding.	Observe woman's loss.	-
Waiting	Do nothing for a bit, waiting for signs of placental separation	Wait for signs of placental separation	Wait 3 minutes.	Wait for a few minutes (2-3) until uterus well contracted and signs of separation
Symptoms of separation	-	-	-	-
Observed signs of separation	Looking out for signs:- cord lengthening and gush of blood.	Wait to see signs:- cord length and bleeding.	Don't necessarily wait for signs, so rely on time:- cord lengthening, little bit of blood loss.	Cord lengthening and a little blood loss. Also uterus contracted.
Checking of the uterus	At 8-9 minutes if nothing happened, feel uterus well contracted before pulling.	Don't handle uterus – rely on observational signs.	Very gently feel uterus to see if well contracted.	Feel uterus well contracted.
Guarding	Don't do this but involves hand across base of uterus and exerting upward pressure with flat of your hand.	Don't touch the abdomen normally.	Hand above SP to feel what's going on.	Hand over SP. Don't press very hard.
Handling cord	Wind cord around fingers or use forceps if cord long. Gentle steady pulling. Leave for a short while if any resistance.	Use artery forceps on cord and gently tug down and continue if no tension.	Wrap cord around fingers. Pull down into bed.	Wind cord around fingers. Gentle downward traction.
Placental delivery including maternal effort category	Support placenta with left hand till almost delivered, then use both hands.	Ask woman to cough to expel placenta into midwife's hands	Bring cord up and deliver placenta into hand gently.	Right hand lift cord up in direction baby delivered in. Left hand cups placenta to guide placenta into kidney dish
Membranes	Sawing motion in up and down motion to get membranes if a long string.	Twist placenta around a bit to ease membranes out.	Wiggle membranes up and down. If a little ragged twist or milk them out with hands or forceps or by asking woman to cough.	If membranes fragile, twist placenta to rope them and then clamp rope and move up and down asking woman to cough. This releases them.
Delay management	Feel uterus through abdomen to see where placenta still attached.	-	-	If greater than five minutes, catheterise if needed and consider breast-feeding.

Midwife	37	38	39	40
Name of management	Active management / controlled management	Active management	Active management	Active management
Women's position for birth	Varies: squatting, Kneeling, all 4s	As upright as possible Semi recumbent most common	Varies: knees most popular, semi recumbent	Varies: Left lateral common
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Anterior shoulder. If alone, immediately at birth before cord clamping.	After cord clamping. Usually within 60 seconds of birth.	Anterior shoulder. If alone, just after birth, usually before cord clamping if baby OK.	Crowning or anterior shoulder. If alone, after birth before cord clamping. Within 1 min
Consent for drug administration	-	-	-	-
Baby's position	On bed	Usually on to tummy	Posted through legs and picked up by mum.	On bed
Cutting cord	2-3 minutes. Father or midwife to cut.	Within 50 seconds. Before syntometrine	2 minutes.	+/- waiting for pulsation to stop. 2-3 minutes. 2 clamps.
Breastfeeding	-	If delay with placental delivery	If baby interested and mum wants to do it.	-
General baby care	-	Quick wrap/dry. Skin to skin, looking at baby, warmth	-	-
General care	Skin to skin.	-	-	-
Women's position during 3rd stage	Semi recumbent	Semi recumbent	Semi recumbent	Semi recumbent
Assessment of bleeding	-	Quick glance down below.	-	Aware of what's happening down there. Estimate blood loss rather than measure.
Waiting	-	For signs of placental separation. 5-10 mins	-	Just wait.
Symptoms of separation	-	-	-	Women usually say they have got a tummy ache.
Observed signs of separation	Little flow of blood and little trickle of blood.	Trickle of blood, lengthening of cord, uterus rising up and well contracted. 5-10 mins. Don't always see.	Gush of blood and cord length. Uterus higher when separated	Usually wait for signs:- cord length and fresh blood loss down there.
Checking of the uterus	After signs, rest hand on tummy to see if placenta separated:- uterus well contracted, mobile, feels different, cord sucks up if still attached.	When midwife thinks placenta is separated, feel fundus to assess if well contracted.	+/- hand on abdomen. Assess if placental still attached by applying pressure above SP looking for cord recession.	After woman feels tummy ache. See that uterus firm and well contracted, indicating separation.
Guarding	Above SP, rest hand with uterus behind it, so can brace the uterus.	-	Hand above SP just sitting there, pushing back a bit.	Left hand above SP. Thumb one side, finger the other, gently holding back uterus.
Handling cord	Clamp placed on cord near vagina and then cord wrapped around fingers. Gentle pressure downwards into bed	Loop of cord over finger or use clamp if needed. Pulling into bed.	Wrap cord round finger. Down and backward traction quite firmly.	Wrap cord around finger and apply gentle traction into bed.
Placental delivery including maternal effort category	Lift cord and catch placenta in a receiver	Move cord up and cup placenta with left hand to deliver	Hands under placenta to receive it. Maternal effort if cord is friable.	Right hand on cord. Left hand holding tray which placenta delivers into.
Membranes	Both hands gently under membranes and will spontaneously deliver. If resistance, get woman to cough or push to ease them out.	Very slow delivery of membranes with occasional use of clamp.	Spontaneously deliver. If trailing, use clamp to tease them + getting woman to cough. Slow management not to tear them.	Membranes will deliver spontaneously. If Matthew Duncan presentation, placenta inverted to rope membranes. If tatty: twist membranes, use clamp to apply weight down and sway side to side.
Delay management	-	Ask woman to stand, move around , use bedpan , pass urine.	Fundal pressure	-

Midwife	41	42	43	44
Name of management	Active management of the 3rd stage	Active management	Active management	Normal management
Women's position for birth	Semi recumbent	Variety: semi recumbent most common	Semi recumbent most common, or hands and knees	Side
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Before cord clamping. About 30 seconds.	Before cord clamping, Within 1 minute of birth	Before or after cord clamping. Within 1 minute. Synonymous with cord clamping	Straight after birth, before cord clamping
Consent for drug administration	-	-	-	-
Baby's position	On mum	Tummy or bed	On tummy* or bed	Tummy or bed then to dad/partner
Cutting cord	2-4 minutes. Same as physiological	Within 2 minutes. After syntometrine. Cord clamp and second clamp.	Clip on baby, clip on cord. Within 2 minutes. Midwife or dad to cut	Cord clamp and regular clamp. +/- waiting for pulsation to stop according to parent wishes. Within 3 mins. Midwife, dad or mum to cut.
Breastfeeding	-	-	-	Routine part of third stage.
General baby care	-	-	Quick dry.	Dried and wrapped. Mum look at baby.
General care	Getting rid of sharps.	-	-	-
Women's position during 3rd stage	Semi recumbent	Variety dependent on comfort and access	Semi recumbent	Semi recumbent
Assessment of bleeding	-	-	Observe blood loss – one eye there (introitus).	Watching blood loss all the time for excessive bleeding.
Waiting	Waiting for 3-5 minutes.	For syntometrine to work and signs of placental separation. Within 5-10 minutes	-	Wait for uterus to be well contracted.
Symptoms of separation	-	-	-	-
Observed signs of separation	Don't wait for signs. Clock watching instead.	Wait for signs: hard and risen uterus (most important), cord length, trickle of blood. Don't always see trickle and could be laceration based.	Cord lengthening, blood loss, uterus well contracted. If don't occur, wait 5-6 minutes.	Don't wait as the only absolute sign uterine changes:- reduced in size. Look at cord and give a tug for no resistance. Cord length/trickle of blood just happen.
Checking of the uterus	Don't palpate uterus, rely on time (3-5 minutes).	To feel if signs of separation :- hard and risen is the main sign. Intermittent checking.	Might feel if uterus well contacted after visual signs of placental separation.	Will not meddle with fundus. Check uterus well contracted by observation.
Guarding	One hand up and back with uterus.	Pressing hand suprapubically upwards and backwards slightly. Not hard.	Left hand above SP pressing gently backwards.	Guarding with hand on SP pressing upward to support uterus while tugging on the cord.
Handling cord	Place cord clamp nearer introitus. Apply downward traction quite firmly.	Pull gently on cord and see what happens. Pull in towards bed – down and back.	Gentle continuous traction with clamp close to vulva.	Hook cord around finger. Gentle downward traction. Move clamp up again if cord long.
Placental delivery including maternal effort category	Pull cord up with curve of cares and placenta delivers into a bowl.	Bring placenta up with cord in right hand. Left hand receives placenta.	Catch placenta in tray as upward traction applied to lift placenta through pelvic curve. Use a change in position if cord breaks.	Wait till placenta half out and then cup placenta with both hands to deliver.
Membranes	Come with placenta. If straggling, gentle push from mum or wait a little longer and try again.	Spontaneous. Ease membranes up and down if trailing. If tearing, use a clamp to tease them out.	Wait if trailing, then use forceps to hold on to membranes and to tease them out.	-
Delay management	-	Worry if over ten minutes.	Sit on bowl (for snapped cord).	-

Midwife	45	46	47
Name of management	Active management	Active management	Active management
Women's position for birth	Various Left lateral All 4s	Semi recumbent most common Left lateral	Woman's choice Semi recumbent most common Left lateral All 4s
Oxytocic drug type	Syntometrine	Syntometrine	Syntometrine
Timing of drug administration	Quickly after birth before cord clamping if alone. Anterior shoulder if second midwife	Before cord clamping within a few seconds of birth if alone. Anterior shoulder if second midwife.	Anterior shoulder by student. If alone, just after birth, before cord clamping.
Consent at time of drug administration			
Baby's position	Tummy usually	Tummy*/bed	Majority on mum's tummy. Can be laid on bed
Cutting cord	No rush. 2-5 minutes. Midwife or partner to cut.	After syntometrine. Within 1 minute. Cord clamp, 2nd clamp, then cut.	+/- waiting for pulsation to stop. 3-15 minutes. Dad or midwife to cut. Take bloods if needed, from cord while in situ.
Breastfeeding	-	-	-
General baby care	Checking baby OK.	Wrap baby.	Checked again. Wipe and more covers and to mum.
General care	Chatting to parents. Don't rush in.	-	-
Women's position during 3rd stage	Semi recumbent	Semi recumbent	Semi recumbent Bit more upright if uncomfortable
Assessment of bleeding	-	-	Change of care if bleeding during 3rd stage.
Waiting	Wait 2 minutes.	-	Wait till something happens – a contraction or a trickle of blood.
Symptoms of separation	Woman usually says she feels a bit uncomfortable.	-	Woman might feel contraction of say she is 'getting a pain'.
Observed signs of separation	Slight gush or something.	Wait for signs but don't always see them –then rely on fundus contracted. Signs referred to as cord lengthening and trickle of blood	Little trickle or feel a contraction.
Checking of the uterus	Feel stomach for uterus being well contracted.	After signs, feel uterus to assess if well contracted.	Feel for a contraction.
Guarding	Stretch lower segment with left hand. Thumb and finger apart – support lower segment	Thumb and forefinger above SP and a bit of pressure applied backwards.	Hand on tummy to support uterus, at an angle. Not pushing, holding.
Handling cord	Hold clamp on cord with right hand. Continuous traction to see if placenta will come away. Pull towards bed.	Hold cord with forceps. Gentle continuous cord traction down into bed. If placenta coming, continue till at introitus.	Controlled cord traction. Clamp to pull down into bed. If coming easily continue.
Placental delivery including maternal effort category	Lift placenta up with cord and cup placental weight with left hand as delivering.	Remove cord traction and cup placenta with both hands.	Lift placenta up with cord and drop into a bowl ready to receive it.
Membranes	Gentle management. Drag placenta a bit to get membranes. If trailing, ask woman to cough or clamp membranes to ease them out in an up and down movement.	If trailing membranes, lever placenta up and down rather than pulling to release them.	Usually will spontaneously deliver. If being retained, use forceps to hold them and twiddle or get woman to cough. Take time.
Delay management	-	Consider need to pass urine and catheterise if necessary.	Consider need to pass urine. Encourage woman to push.

Midwife	1	2	3	4
Name of management	Physiological 3rd stage	Physiological	Physiological third stage	Physiological management
Women's position for birth	Semi recumbent	Various – suggest upright	Upright position	Standing, kneeling, all 4s
Oxytocic drug type	-	-	-	-
Timing of drug administration	-	-	-	-
Consent at time of drug administration				
Baby's position	Arms/bed	Arms	Bed then arms	Chest/bed or to dad
Cutting cord	Cut when cord stopped pulsating	Cut when cord stopped pulsating 20-30mins Family member to cut. Cord clamp and second clamp	Cut when cord stopped pulsating. Cord clamp and second clamp and partner to cut. 2 minutes. Release clamp to drain placenta	Cut when cord stopped pulsating. 10 minutes. Cord clamp and second clamp. Dad cuts or family member. Release clamp if cord still pulsating to drain placenta.
Breastfeeding				
General baby care	-	-	-	Check baby warm and place more covers over.
General care	-	-	-	-
Women's position during 3rd stage	Upright Rocking on bedpans or all 4s	Make mum comfortable	Upright	Sit and flop and relax at first Then upright/bedpans
Assessment of bleeding	-	Make sure not bleeding		
Waiting	-	Waiting for adoration of baby to die down.	-	-
Symptoms of separation	-	Multips get strong after pains during third stage.	Feeling to push. Ooh I feel uncomfortable.	Express desire to push especially multips. Feel placenta having descended.
Observed signs of separation	As I've said before, observe for signs.	-	-	-
Checking of the uterus	-	-	-	-
Guarding	Apply supra pubic pressure with hand over SP pushing against uterus.	-	Don't guard as not pulling.	-
Handling cord	Guide placenta out looping finger around cord.	-	While encouraging pushing, may put gentle traction on cord:- keeping it taught, not pulling.	Generally none. If delay:- pull cord to get placenta out if separated.
Placental delivery including maternal effort category	Placenta delivered by cord traction following birth canal.	Placenta comes out on its own with woman pushing, coughing and/or standing up. Placenta received into a bowl held next to vagina.	Woman bears down in an upright position to deliver placenta.	Encourage woman to be led by her own body feelings with a change of position to help her. Placenta caught in a bowl. Lift placenta up with finger if delay.
Membranes	May need seesaw movement to ease membranes out. Occasionally apply forceps, especially if ragged	-	Tend to all fall out into tray.	Plop out without assistance.
Delay management	-	-	-	-

Midwife	5	6	7	8
Name of management	Physiological 3rd stage	Physiological	Physiological	Physiological management
Women's position for birth	Knees	Standing	Semi recumbent	All 4s Hands and knees
Oxytocic drug type	-	-	-	-
Timing of drug administration	-	-	-	-
Consent at time of drug administration				
Baby's position	Usually mum's arms	No data	Arms	To mother
Cutting cord	Delay/Don't touch. Cord cut sometimes before and sometimes after placenta delivered. Cord drained for cord bloods.	Cut when cord stopped pulsating. 15-30 minutes. Cut before or after placenta out.	3 minutes. Syringe to collect bloods once cut. Drain blood out of placenta once cut.	Cut when cord stopped pulsating (short time). Cord clamp and regular clamp or two clamps.
Breastfeeding	During third stage	Immediately after birth	-	If baby and mum interested.
General baby care	We spend time with the baby.	-	Make sure baby comfortable.	Wrap over baby on abdomen.
General care	Cover mum up if cold.	-	-	-
Women's position during 3rd stage	On bed for comfort Upright useful	Sitting	Semi recumbent or lying down	Sitting initially then upright as necessary/out of pool
Assessment of bleeding	-	-	Watching for haemorrhage. If bleeding occurs - intervene	Watching for 'excessive' bleeding
Waiting	Do nothing	-	Watching and waiting for placenta to come, unless any bleeding (5 minutes).	Wait to see what happens – for placenta to descend and woman to have urge to push
Symptoms of separation	'ooh' 'tummy ache' 'Something there' Not usually present in active management	-	Urge to bear down or 'feeling something there'	Feel something and urge to push.
Observed signs of separation	Often a bleed, next the cord.	Still await signs as for active management.	-	Wait for events such as cord lengthening and placenta presenting at vulva.
Checking of the uterus	-	-	-	-
Guarding	-	-	-	-
Handling cord	Gentle hand on cord if placenta sitting in vagina – lift placenta out of vagina.	-	-	None or pull cord slightly to ease placenta out. Assisting rather than pulling.
Placental delivery including maternal effort category	Active position and encourage woman to push. Placenta plops directly into bowl.	Maternal effort. Catch placenta in midwife's hands.	Maternal effort: push down. Kidney dish held beneath woman and let placenta drop into it.	Woman has urge to push and encourage pushing. Placenta delivered into a bowl held close to vagina.
Membranes	Just catch them. If trailing, twist membranes into a rope.	Usually spontaneous. If trailing, use a clamp.	Rope membranes if trailing behind.	Spontaneously deliver or use of fingers to tease them by pulling gently and giving extra time.
Delay management	-	-	-	-

Midwife	9	10	11	12
Name of management	Physiological	Physiological	Physiological 3rd stage	Physiological
Women's position for birth	Various Upright	Management not described	Management not described	Upright, standing, supported squat, chair, kneeling
Oxytocic drug type	-			-
Timing of drug administration	-			-
Consent at time of drug administration				
Baby's position	No data			With mum
Cutting cord	Straight after birth			Stopped pulsing. 10-15 minutes. Before or after placenta delivered. Partner may cut.
Breastfeeding	Early feeding important in physiological 3rd stage			Part of third stage, but can be influenced by Pethidine administration.
General baby care	-	-	-	Check not distressed/flat. Eye on colour. Suitable environment, skin to skin.
General care	-			-
Women's position during 3rd stage	Semi recumbent			Upright Only change if delay
Assessment of bleeding	-			'Eye on blood'. Use syntometrine if bleeding occurs. Change management if bleeding occurs – 'piecemeal'.
Waiting	Wait for placenta to plop out.			Wait and do nothing.
Symptoms of separation	Feels when placenta in vagina. 'ooh' factor			Urge to push
Observed signs of separation	Look for signs, then see placenta.			DO not wait for signs. Not aware of them unless delay, when trickle of blood and cord lengthening looked for.
Checking of the uterus	-			Not feeling uterus.
Guarding	Don't guard as not pulling			-
Handling cord	Use cord to lift placenta out of vagina once visible. Guidance more than pressure.			Never handle cord until placenta sitting in vagina when may ease it out, holding cord rather than pulling.
Placental delivery including maternal effort category	Wait for placenta to deliver and cup in left hand to support.			Woman has urge to bear down and encouraged to do so. No handling of cord until placenta almost out. Placenta delivered into a bowl.
Membranes	Spontaneous. Don't seem to be as ragged as in active management.			If membranes trailing, ask woman to cough and give a gentle pull on them.
Delay management	-	-	-	-

Midwife	13	14	15	16
Name of management	Physiological	Physiological	Physiological 3rd stage	Expectant management
Women's position for birth	Various	Semi recumbent	Semi recumbent	All 4s
Oxytocic drug type	-	-	-	-
Timing of drug administration	-	-	-	-
Consent at time of drug administration				
Baby's position	Arms/bed	Abdomen	Abdomen	No data
Cutting cord	Stop pulsing. Clamp to baby. Take clamp off maternal end. 15 minutes.	After pulsation stopped. 5 minutes. Clamped and cut by midwife.	Wait for pulsation to stop. 2-3 minutes	Stop pulsing. 10-20 minutes. 2 clamps. Family to cut.
Breastfeeding	-	-	-	Suggested by midwife
General baby care	-	Wrapping baby	-	-
General care	-	-	-	-
Women's position during 3rd stage	Depends on birth position Upright Semi recumbent if has baby	Semi recumbent	Semi recumbent	Initially semi recumbent then Stand/squat/ Bedpan for placenta delivery
Assessment of bleeding	Blood loss seems a bit more than active management	-	If bleeding occurs, check uterus well contracted. Change management if bleeding to active management.	-
Waiting	Wait for cord pulsation to stop unless resuscitation needed.	Takes longer when syntometrine not given. Waiting for uterus to contract.	-	Waiting for cord pulsation to stop.
Symptoms of separation	-	Fullness in bottom. Urge to push. Feel uterus contracting. Cramping abdominal pain.	After pains, then urge to push. Feel contraction and also heaviness in vagina.	-
Observed signs of separation	-	-	Wait for signs:- blood loss, after pains, urge to push.	-
Checking of the uterus	-	Hand on mum's tummy and wait (20 minutes).	If woman feels something, then midwife checks uterus contracted and placenta dropped.	-
Guarding	Guard same as active management	-	-	-
Handling cord	-	Cord traction as for active management	In some situations hold cord, but don't pull. If delay in placental delivery, see if any give in cord suggesting placenta separation.	-
Placental delivery including maternal effort category	Either lift out with traction or use maternal effort.	Maternal effort with hand held on abdomen above SP to provide woman with something to push against. Placenta slips into bed or is caught in the midwife's hands.	Spontaneous pushing by woman without direction. Catch placenta in both hands. If any delay, a small amount of cord traction may be used.	Stand up or squat over bedpan with maternal effort to deliver placenta into bed/on to floor/into bedpan
Membranes	-	Same as for active management	Manage only if stuck and then same as active management. Usually deliver spontaneously more easily than in active management.	Spontaneously deliver.
Delay management	-	-	May need to go from physiological management to active with bleeding or extreme delay by giving syntometrine and rubbing up a contraction.	-

Midwife	17	18	19	20
Name of management	No drugs	Physiological	Passive management	Passive management
Women's position for birth	Management not described	Management not described	Woman's choice Semi recumbent most common Left lateral All 4s	Various
Oxytocic drug type			Syntometrine ready just in case of bleeding or delay	Syntometrine is uterus felts on the soft side after a while
Timing of drug administration			If delay or bleeding at any time	After a period of time (not specified)
Consent at time of drug administration				
Baby's position			Mum's stomach or bed	With mum or dad Abdomen or suckling
Cutting cord			After pulsing stopped. Then clamp and cut.	Within 20-30 seconds. Same as active management.
Breastfeeding			Encouraged by midwife	Suggested by midwife
General baby care			-	-
General care			-	-
Women's position during 3rd stage			Sitting Squat or all 4s if delay	Sitting on bucket
Assessment of bleeding			Syntometrine at ready if bleeding or delay occurs.	Hands off if blood loss normal, just observe.
Waiting			Waiting for signs of placental separation – 20 minutes.	Wait up to 30 minutes for placenta to separate – identify by raised uterus and signs.
Symptoms of separation			-	-
Observed signs of separation			Wait for signs with hand on uterus.	Wait for signs:- raised uterus, descended cord, then assess uterus well contracted.
Checking of the uterus			Hand on uterus for signs of separation.	Assess uterus well contracted
Guarding			-	Guard uterus as for active management.
Handling cord			If woman cannot expel placenta herself, lift it out with cord traction.	If maternal effort not working, go for cautious CCT if placenta separated.
Placental delivery including maternal effort category			Ask woman to push. Placenta delivers on its own, though hand can be used to ease placenta out of vagina if stuck.	Either completely hands off and placenta delivers with maternal effort or controlled cord traction if delay as for active management
Membranes			-	Same as for active management.
Delay management			Syntometrine ready in case of bleeding	Use controlled cord traction carefully and gently if placenta not delivered and can confirm placenta separated.

Midwife	21	22	23	24
Name of management	Physiological 3rd stage	Passive management	No data	Natural or physiological
Women's position for birth	Upright –supported squat*, sitting, kneeling	Management not described	Management not described	No data
Oxytocic drug type	-			-
Timing of drug administration	-			-
Consent at time of drug administration				
Baby's position	Arms			No data
Cutting cord	Following pulsation stopped. 5-10 minutes. Release clamp on maternal end if delay in placental separation			Immediately. As for active management
Breastfeeding	-			Midwife suggests
General baby care	-			-
General care	-			-
Women's position during 3rd stage	Sitting back then upright for delivery			Semi recumbent Bedpan if delay
Assessment of bleeding	-			Vigilant in case bleeding concealed. Use of breast-feeding to reduce bleeding.
Waiting	-			15-20 minutes. Waiting for uterus to contract.
Symptoms of separation	Stomach ache. 10-15 minutes after baby born.			Feeling 'down below'. 'Trickling down' feeling.
Observed signs of separation	Wait for signs: cord lengthening, some bleeding.			Waiting for signs:- trickle of blood.
Checking of the uterus	-			Still put hand on fundus. Need patience as can take 15-20 minutes.
Guarding	Guard uterus very gently with hand in towards mother, above SP>			Bring hand down again as for active management.
Handling cord	Either gentle or hard cord traction according to length of delay in placental delivery.			If placenta not delivered with maternal effort, help placenta out with CCT.
Placental delivery including maternal effort category	Ask women if she feels like pushing and encourage to do so. Placenta delivers directly into a bowl. If no feeling to push, check placenta separated and do cord traction with maternal effort.			Maternal effort. Placenta delivered into midwife's hands. If placenta gets stuck at introitus, a finger is used to ease placenta out of vagina.
Membranes	Ask woman to cough if membranes delayed or artery forceps can be used to milk membranes by moving them forwards and backwards.			Spontaneously deliver.
Delay management	Release clamp on cord to aid placental delivery and also use cord traction if necessary, strength of pull dependent on length of delay.			Fundal pressure if all else fails. Hand on top of fundus and pushing down towards woman's feet.

Midwife	25	26	27	28
Name of management	Does not practice	Physiological management	Physiological 3rd stage	Physiological
Women's position for birth	Management not described	Various Semi recumbent Kneeling All 4s	Various Kneeling most common	Standing Kneeling Semi recumbent
Oxytocic drug type		-	-	-
Timing of drug administration		-	-	-
Consent at time of drug administration				
Baby's position		To mum	No data	Breast
Cutting cord		Wait for pulsing to stop. Discuss beforehand with mum. 2-3 minutes.	Wait for pulsing to stop. Up to 20 minutes.	Till placenta delivered or cord stopped pulsing. 5-20 minutes.
Breastfeeding		Mum will want to.	Part of 3rd stage	Part of 3rd stage
General baby care		-	Make sure baby OK.	-
General care		-	-	-
Women's position during 3rd stage		Upright	Upright or lying down	Sitting
Assessment of bleeding		-	-	-
Waiting		-	Waiting for woman to feel something.	Await placenta.
Symptoms of separation		Midwife waits until woman feels placenta in vagina.	Feel contraction.	Feels a contraction or wants to 'go to the loo'. 'Feels funny'.
Observed signs of separation		-	-	-
Checking of the uterus		-	-	-
Guarding		-	-	-
Handling cord		None	None	None
Placental delivery including maternal effort category		If woman feels placenta is there, directed to push in an upright position to bring about spontaneous delivery.	Ask to push when woman feels placenta descend and delivers spontaneously in squatting position without intervention. Received into a bucket or bowl.	Maternal effort:- pushing and sometimes a cough. No intervention. Placenta caught in midwife's hands or a bowl.
Membranes		Same as for active management if membranes get stuck.	If ragged, tease membranes out in same way as for active management.	Slip out spontaneously. Use forceps to wind membranes if stuck. Do not pull.
Delay management		Breast feeding for delay.	Ask woman to pass urine if delay.	-

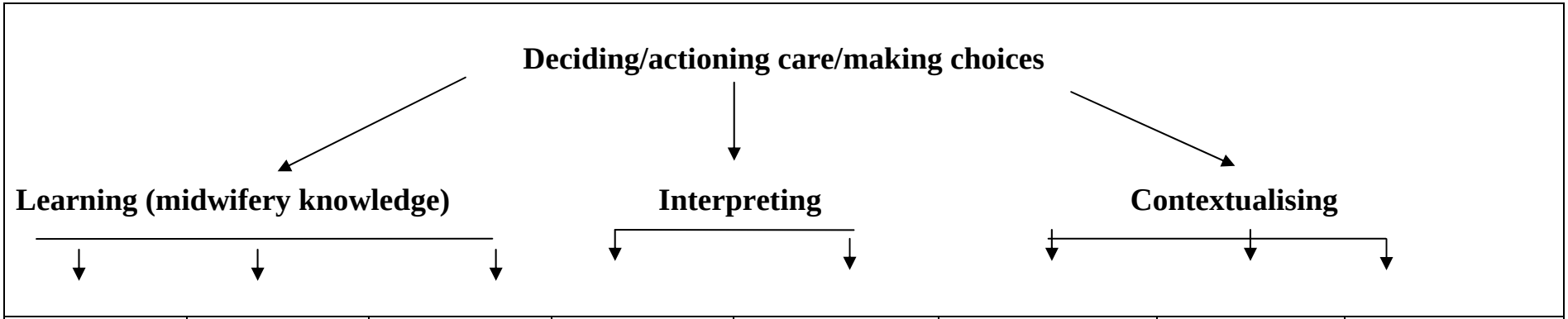
Midwife	29	30	31	32
Name of management	Physiological	Physiological	Physiological 3rd stage	Physiological third stage
Women's position for birth	Kneeling or squatting	Management not described	50% S/recumbent 50% all 4s Standing	Semi recumbent or upright
Oxytocic drug type	-		-	-
Timing of drug administration	-		-	-
Consent at time of drug administration				
Baby's position	Abdomen		Bed or breast	To mum
Cutting cord	After pulsation stopped. 5 minutes. Cord clamp and Spencer Wells then cut.		Stop pulsating. After placenta unless delay of more than 20/30 minutes. Unravel cord from vagina to assist in detecting cord lengthening with placental separation	After pulsation stopped.
Breastfeeding	Encouraged.	-	No	Encourage
General baby care	-		Check health of the baby – breathing/heart rate.	-
General care	-		Keep woman warm and all right.	-
Women's position during 3rd stage	Semi recumbent* or upright – bucket, bedpan , squat		Squatting	Semi recumbent
Assessment of bleeding	--		Watch amount of blood loss. Assess uterine contraction if bleeding occurs. Normal gush with gravity and placental separation. No touching as long as no excessive bleeding.	-
Waiting	Wait for placenta to deliver.		Wait at least 20 minutes and do nothing unless bleeding. Waiting for uterine contraction and signs of separation.	-
Symptoms of separation	Feel contraction. Pressure Abdominal pain Some women do not get any signs.		Contraction. Feel ready to push.	-
Observed signs of separation	Often at separation, see trickle of blood and cord movement.		Still look for trickle of blood and cord lengthening.	Wait for signs.
Checking of the uterus	Avoid touching.		If lots of blood loss, feel uterus to see if boggy or well contracted. After signs, might check uterus well contracted.	-
Guarding	-		-	No guarding
Handling cord	-			None
Placental delivery including maternal effort category	Upright position aids placental delivery with maternal effort and +/- breast-feeding. Placenta delivered directly into a bucket or bedpan.		Wait for placenta to deliver itself with woman in squatting position.	Maternal effort in upright position. Placenta cupped in hands, then placed into a receiver.
Membranes	Usually plop out with weight of placenta. Can hold the placenta and get woman to cough if membranes get stuck in vagina. Also forceps can be used in combination with woman coughing and up and down motion on clamp.		Guide membranes if ragged with finger twisting them, to slip out slowly. Don't use weight of placenta as could deliver too quickly and tear in the process.	-
Delay management	-		Clamp and cut cord and apply traction if delay and suspect a retained placenta. May also empty woman's bladder, use breastfeeding, check uterus well contracted and give syntometrine if uterus boggy.	-

Midwife	33	34	35	36
Name of management	Physiological	Passive or physiological	Physiological management	Physiological
Women's position for birth	50% Semi recumbent 25% left lateral 25% kneeling/all 4s	What woman wants All 4s Kneeling 50% Semi recumbent	All 4s	Management not described
Oxytocic drug type	-	-	-	
Timing of drug administration	-	-	-	
Consent at time of drug administration				
Baby's position	Abdomen	Tummy* or bed	Arms/bed	
Cutting cord	Delayed for pulsation to stop.4-5 minutes.	Slightly delayed. 2 minutes. Take blood if needed during 3rd stage.	Wait for pulsing to stop. After placenta delivered usually.	
Breastfeeding	-	-	Encourage	
General baby care	-	-	-	
General care	-	-	-	
Women's position during 3rd stage	Sit on bedpan	Semi recumbent initially then upright for placenta delivery	Upright	
Assessment of bleeding	Make sure women don't give a gigantic push a may start bleeding. Also bleeding more after a physiological 3rd stage – 'big patch'.	Check no excessive bleeding and clean sheet below mother to assess how much being lost.	-	
Waiting	Await placenta. 10-15 minutes. Intervene only if delay.	Waiting for signs and for woman to identify that she can feel something.	-	
Symptoms of separation	Awareness of uterine contraction. 'Feel something there'.	Very bad after pains. Want to push.	'Ooh factor'. Want to push	
Observed signs of separation	-	Looking for cord lengthening, blood loss, after pains and urge to push.	Wait for cord lengthening and blood loss.	
Checking of the uterus	-	-	-	
Guarding	-	-	-	
Handling cord	None or hold cord and apply a little bit of downward traction while woman pushing. Traction more conservative, gentler than with active management	-	None unless delay when give a little tug on cord to see what happens.	
Placental delivery including maternal effort category	Placenta just comes out with woman pushing a little bit. Placenta delivered into bed/bedpan or caught in midwife's hands. Don't push too much.	Woman bears down to deliver placenta into midwife's hands	Woman has urge to push and pushes placenta into midwife's hands usually in all fours or a standing position.	
Membranes	Come out spontaneously.	Same as active management.	-	
Delay management	Feel abdomen to check well contracted if delayed/.	-	If placenta taking a while, will be tempted to have a little tug or stick a finger in to see if placenta there.	

Midwife	37	38	39	40
Name of management	Physiological management	Physiological 3rd stage	Physiological management	Non active or physiological
Women's position for birth	Various Squatting Kneeling All 4s	As upright as possible Semi recumbent most common (woman's choice	Various Knees most popular Semi recumbent Leaning over bed	Management not described
Oxytocic drug type	-	Syntometrine just in case of bleeding (as a precaution)	-	
Timing of drug administration	-	If bleeding occurs	-	
Consent at time of drug administration				
Baby's position	No data	Abdomen for skin to skin contact	No data	
Cutting cord	Delayed for pulsing to stop. 5 minutes. Father to cut.	Delay for pulsing to stop. 2 minutes. Cut as for active management.	Wait for pulsating to stop. 5-10 minutes. Cord clamp and cut. Release maternal end.	
Breastfeeding	-	Associated with physiological third stage.	-	
General baby care	Observe baby in good condition.	-	-	
General care	-	-	-	
Women's position during 3rd stage	Semi recumbent as can be up to ½ hour.	Semi recumbent	Semi recumbent or upright	
Assessment of bleeding	Surreptitious observe for bleeding. Peek to make sure.	Syntometrine drawn up in case of bleeding.	-	
Waiting	Waiting for signs of placental separation. 10-20 minutes.	-	-	
Symptoms of separation	Pain in tummy. Feel something.	Wait for woman's reaction – feel something or awareness of a contraction.	Usually feel like pushing. 'Something there'.	
Observed signs of separation	Wait for signs:- trickle of blood. 10-20 minutes.	-	-	
Checking of the uterus	-	-	-	
Guarding	-	-	-	
Handling cord	Hold cord but not traction. Just guide to make sure placenta coming.	None	None	
Placental delivery including maternal effort category	Tell woman about how placenta will be delivered. Ask her to push and placenta spontaneously plops out.	Tell woman to go with her body. Placenta delivered into bed or bowl.	Maternal effort.	
Membranes	Tease or encourage membranes.	Membranes follow placenta spontaneously. Don't trail as much.	If trail behind, same as active management.	
Delay management	Offer bedpan for woman to pass urine if delay.. Placenta usually plops into bedpan.	If delay, use breast-feeding, and encourage woman to stand really upright, pass urine, walk to bedpan.	-	

Midwife	41	42	43	44
Name of management	Physiological	Physiological 3rd stage	No syntometrine	Does not practice
Women's position for birth	All 4s	Variety Semi recumbent most common	Semi recumbent most common Hands and knees	Management not described
Oxytocic drug type	-	-	If she bled I might have to give her something	
Timing of drug administration	-	-	If bleeding occurs	
Consent at time of drug administration				
Baby's position	Bed then to mum or partner	Abdomen	Abdomen	
Cutting cord	2-4 minutes or wait for pulsing (if asked to do so). Cord clamp and second clamp.	Stopped pulsating. Usually after placenta.	4 minutes. Stop pulsing. Same as active management when cutting.	
Breastfeeding	-	Encourage	Promote.	
General baby care	-	-	-	
General care	-	-	-	
Women's position during 3rd stage	Sitting All 4s or squat over bowl if delay	Semi recumbent	Sitting	
Assessment of bleeding	-	-	-	
Waiting	-	Wait for woman to say she can feel something and don't fiddle.	Wait for signs of placental separation – takes longer than in active management	
Symptoms of separation	Notice next contraction or 'something there'.	-	-	
Observed signs of separation	Don't wait for signs as misleading, but may see lengthening and trickle of blood.	Looking for lengthening of the cord and trickle of blood.	Wait for signs.	
Checking of the uterus	-	Hand on abdomen now and then to check for placental separation.		
Guarding	-	-	-	
Handling cord	-	Usually none. If problem with delay, then introduce a bit of active management with a little tug on the cord.	None	
Placental delivery including maternal effort category	Maternal effort with woman leaning over upright. Catch placenta in something:- bucket with bag.	Ask woman to push and placenta delivers spontaneously. If delay, introduce a little tug on the cord. Cradle placenta in left hand as it is delivered.	Maternal effort including coughing as necessary. Placenta delivered into bowl in hands.	
Membranes	-	Same as for active management.		
Delay management	-	If placenta not coming use active management:- guarding and a little tug on the cord.	-	

Midwife	45	46	47
Name of management	Physiological management	Physiological	Natural management
Women's position for birth	Squat All 4s	Semi recumbent most common Left lateral	Semi recumbent
Oxytocic drug type	-	-	-
Timing of drug administration	-	-	-
Consent at time of drug administration			
Baby's position	Bed	Abdomen	Abdomen
Cutting cord	Stopped pulsating. 3 minutes. Midwife cuts.	Stop pulsating. 15 minutes. Cut as for active management.	2-15 minutes. Wait for pulsation to stop.
Breastfeeding			
General baby care	Looking at what baby is / welcoming baby – Time for family.	-	Do something with baby – check baby over on bed.
General care	Welcoming baby. Time for family to accept what has happened.	-	Cover mum as it may be a while.
Women's position during 3rd stage	Sitting or squatting	Semi recumbent	Semi recumbent
Assessment of bleeding	If heavy – check uterus well contracted or loss associated from vaginal laceration.	-	Keep watching to see if anything does happen – don't want massive haemorrhage to take place. More aware of bleeding. Bleeding also occurs with placental separation.
Waiting	-	Wait for nature to expel placenta.	Wait for something to happen – woman identifying she can feel a contraction or signs of placental separation.
Symptoms of separation	Can feel something especially if upright. Need to push feeling or want to have bowels open.	-	Says when she has a contraction.
Observed signs of separation	Wait for signs: Blood flow.	Look for signs.	
Checking of the uterus	Don't interfere at all	Hand on abdomen	Wait for something:- contraction or signs of bleeding
Guarding	No guarding		Guarding as for active management.
Handling cord	None	-	CCT again, pulling on placenta.
Placental delivery including maternal effort category	Let placenta just come with woman in upright position. May need woman to give a little push when placenta at vulva. Placenta plops into bed or midwife's hands.	Wait for nature to expel placenta. Receive into midwife's hands and then place in a receiver.	-
Membranes	-	Same as active management.	-
Delay management	Cough if placenta stuck at vulva. Use clamp to release membranes if stuck at vulva.	-	-



Formal	Informal	Experiential	Midwife's philosophy	Aims of care	Physical environment	Cultural environment	Individual environment
Student experience Risk culture Intervention Physiology knowledge Theoretical education Training in 3rd stage Formal training since qualifying Reading Way taught	Educated by colleagues Coffee room chat Watching others Discussion Challenged Support of Experienced midwife Influenced by support Oral tradition	Automatic practice Don't know Learning from experience Instinct Professional judgment Research Effect of key experiences Experience and practice Stories Expertise development Experimenting Forgetting Instinct/intuition What works Experience and practice Competence	Beliefs Control Fear Intervention Natural Normality Anxiety Danger Feelings about oxytocics Choice Power Rigid/flexible Safety Values and beliefs	No harm Speed Comfort Completion Convenience Detecting Feeling Helping Patience Reassurance Risk/safety Not sure	Place of birth Birth room Drug availability Physical Practical Employment Environment Who in room	Challenged Medicalisation People Work culture Guidelines Unit policies Routine Tradition Habit Instructed to do Team	Choice Assessing needs Baby Complications Delay Depends Flexibility H/O intervention Reactions of Woman's Woman's view

Appendix twenty one: Theory of contingent decision making with all categories represented

Appendix twenty two: Midwife approach to third stage care by midwife's place of employment and birth environment of women being cared for.

Midwife	Model of care for the third stage of labour	Birth environments	Place of work
	Flexible		Hospital / community
	Non intervention		Hospital / community*
	Intervention		Hospital
	Flexible		Research, hospital and community
1	Flexible	Hospital/midwifery led unit	Hospital
2	Flexible	Hospital	Hospital
3	Intervention	Home/HFH/Hospital	Hospital/community
4	Non intervention	HFH/Hospital	Hospital
5	Non intervention	Home/Hospital	Hospital/community
6	Intervention	Hospital/midwifery led unit	Hospital
7	Intervention	Hospital/HFH	Hospital
8	Non intervention	Hospital	Hospital
9	Intervention	HFH/Hospital	Hospital
10	Intervention	Hospital	Hospital
11	Intervention	HFH/Hospital	Hospital
12	Non intervention	Hospital	Hospital/community
13	Intervention	Hospital/HFH	Hospital
14	Intervention	Hospital/GP unit	Hospital
15	Flexible	Home	Hospital / community *
16	Non intervention	Home/Hospital	Hospital/ community *
17	Intervention	Hospital	Hospital
18	Flexible	HFH/Hospital/Home	Community
19	Intervention	Home	Community
20	Flexible	Home / hospital	Community
21	Non intervention	Home / hospital	Hospital / community *
22	Intervention	Hospital	Hospital
23	Intervention	Hosp/home	Hospital / community *
24	Intervention	HFH/Hospital	Hospital
25	Intervention	Hospital	Hospital

26	Intervention	Hospital	Hospital
27	Flexible	HFH/Home	Community
28	Non intervention	HFH	Hospital
29	Flexible	Home/hospital	Hospital/community
30	Intervention	Hospital/HFH	Hospital
31	Flexible	Home / hospital	Hospital
32	Intervention	Hospital/HFH	Hospital
33	Intervention	Hospital	Hospital
34	Flexible	Hospital	Hospital
35	Intervention	HFH/Hospital	Hospital
36	Intervention	Hospital/HFH	Hospital
37	Intervention	Home/Mid led unit	Midwifery led unit
38	Flexible	HFH/Hospital	Hospital
39	Intervention	Home/Hospital	Midwifery led unit
40	Flexible	Hospital	Hospital
41	Flexible	Home/Hospital	Community
42	Flexible	Hospital	Hospital
43	Intervention	Hospital	Hospital
44	Intervention	Hospital	Hospital
45	Flexible	Hospital	Hospital
46	Intervention	Hospital	Hospital
47	Flexible	Home/hospital	Community/hospital